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ORIGINAL ARTICLES.

STROPHANTHUS, CAFFEINE, ETC.*

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(An extract from the Boston Med. and Surg. Jour.)

Next in importance to digitalis in the treatment of chronic cardiac disease is strophanthus. Strophanthus is an arrow poison from Africa. It is a curious fact that nearly all arrow poisons are peripheral poisons. You can see why. Any one who has ever shot a deer knows full well that the ball through the body often will not stop the creature, much less would an arrow, even though poisoned; but when the nerve trunk wilts under the influence of curare it is impossible for the animal to run, so that arrow poisons almost all act directly upon the motor apparatus; and the chief action of strophanthus is a muscle poison. At first the general musles gain in tonicity, contract more readily and powerfully than normal, respond to stimuli that did not move them before; and when the contraction comes, it remains for a little time after the cessation of the stimulus. By and by the muscle begins to contract of itself, as it were; its tonicity goes beyond the normal line; and muscular stiffness comes and lack of power growing ever and ever, until at last the muscle sets itself in the death mask of post-mortem rigidity, and the animal is dead. It has been proved by the experiments of Frazer and others, that strophanthus acts not simply this way on the ordinary striated or voluntary muscles, but affects also the muscle of the heart, the influence of the strophanthus upon the heart being simply a part of its widespread general action. The heart muscle is much more sensitive to the action of strophanthus than are the muscles of voluntary life, and so the heart action comes out under the influence of strophanthus before the muscles of voluntary life feel its power. Hence it is that strophanthus is a valuable remedy. When we come to study the symptoms which are produced by strophanthus, we find they are, first, slowing and strengthening of the pulse; the slowing of the pulse, however, never equalling that produced by digitalis, and the power of the individual beat never coming up like the great tidal wave of digitalis action. Then by and by we have usually gastric distress, if the remedy be taken in toxic doses, and then purging and excessive diuresis; later, the pulse loses its power, becomes feeble, irregular, and then muscular relaxation or stiffness with inability to move develop, and so the animal goes down to death. After death we find that there is gastro-intestinal inflammation, and often very pronounced inflammation of the kidneys. Just here we may note a very distinct difference between the action of strophanthus and the action of digitalis. There is no lesion of the kidney after poisoning from digitalis; and we come, through the anatomical pathway so to speak, face to face with an important clinical fact, namely, that strophanthus has far more action upon the kidneys than has digitalis. It is much more of a diuretic than digitalis. It acts usually as a diuretic upon the healthy man while digitalis usually fails. In Phillip's experiments with the oncometer it was found th t strophanthus increased enormously the flow of urine from the kidney without increasing the bulk or size of the kidney, that is without markedly increasing the amount of blood in the kidney, evidence that the action of strophanthus is directly upon the secreting structure of the kidney.

We have not as complete and thorough knowledge of the heart action of strophanthus as we of the action of digitalis. We know, however, from the experiments of Frazer and a number of investigators who have followed him that strophanthus acts upon the cut-out frog's heart as a powerful stimulant, slowing it somewhat, increasing the force of its contractions, and finally producing arrest; and here we have a curious conflict of testimony. Frazer says that the arrest always takes place in systole, while others claim that it takes place in diastole. The probability is that sometimes the arrest takes place in systole and sometimes in diastole. We have no knowledge that there is an inhibitory stimulation under the influence of this drug like that caused by digitalis. What experiments we have, show that the cutting of the vagi does not prevent the slowing of the pulse; and it is even asserted that late in the poisoning the vagi are found paralyzed. Therefore, so far as our present knowledge goes, this drug differs, in the second place from digitalis in not being a stimulant to the vagi nerves, therefore in not being a trophic stimulant to the heart. It is proved by the experiments of various investigators that after the action of the drug in the mammal, there is a great rise in the arterial pressure. This rise in the arterial presuure, accompanied by slowing of the pulse, persists a length of time, and then the pulse becomes small and

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feeble and more or less irregular, and the arterial pressure falls to nothing or almost to nothing. The cause of the secondary fall of the pressure has not been thoroughly worked out. There may be with strophanthus imperfect diastole, precisely as we have under the influence of digitalis; but we do not know positively whether this be the case or not.

The nature of the action of this drug upon the vascular system is at present uncertain. Popper states that previous sections of the splanchics does not prevent strophanthus from producing a rise of pressure; if these experiments be accurate, it is improbable that strophanthus strongly affects the vaso-motor centres in the medulla. On the other hand, it seems probable that the muscle-fibres in the walls of the blood vessels feel the muscle influence of the drug; but here again we have not positive information.

To sum up this brief and hurried statement, which may not seem clear to you, we note that strophanthus is a drug which acts very quickly and pugaciously as compared with digitalis; that it acts like digitalis directly upon the heart muscle; that it appears to be wanting in the trophic influence of digitalis; that its effects are less permanent than are those of digitalis; that so far as the vaso-motor system is concerned, our knowledge is so imperfect we cannot say whether the blood-vessels are contracted or not; that strophanthus vastly exceeds digitalis in its diuretic action. The place of strophanthus, therefore, in our category of heart medicines is an adjuvant and guard relief, so to speak, to digitalis. Digitalis is the thing we stand by; strophanthus is the remedy which we use to relieve digitalis.

And now let me call your attention still more briefly to a third remedy which is of great service in the treatment of chronic cardiac disease. I refer to caffeine. Caffeine sets itself apart, so far as our present purposes are concerned, from digitalis and also from strophanthus in that its cardiac action is only a small part of its widespread action upon the human organism. It is a powerful cerebral stimulant. It seems to be the only known substance which has the power of absolutely increasing human brain work. Opium stimulates the imagination; alcohol lifts a man up for the moment to throw him into confusion and irregularity of action; but caffeine increases his power of reasoning and absolutely adds to his brain-work capacity for the time. Caffeine is a valuable remedy as a respiratory stimulant. It ranks fairly well up among these drugs. We find caffeine has many points of resemblance in its action to strophanthus. It is a muscle poison. It stimulates, alters the contraction rate of the muscle, throws the muscle finally into a condition of death, from life directly into post-mortem rigidity, as does strophanthus. Like strophanthus, it is a powerful diuretic, probably even a more powerful diuretic than strophanthus itself, and it is, therefore, a very suitable remedy in the treatment of cardiac dropsies. When we come to study the action of caffeine upon the circulation, we find here again we have much to learn, though the recent experiments of Professor Reichert of the University of Pennsylvania have given us some more settled data than we had. It differs from digitalis in its action on the frog's heart, belongs rather with the class of ammonia and alcohol, since it first stimulates and then depresses. The experiments of several investigators finally have reconciled the very contradictory results and assertions of the earlier investigators and shown that the influence of this drug on the heart muscles varies with the dose. The small dose of caffeine certainly increases the working power of the frog's heart. The large dose of caffeine paralyzes or depresses the heart, so that under the influence of a large dose the frog's heart does not do the work that it does in the normal condition, much less the work that it does when the caffeine is present in small dose. We have had similar discord in regard to the effect of caffeine upon the blood-pressure of the lower animals. The experiments of Reichert finally demonstrate that both in the non-curaized and the curaized mammal caffeine in small dose elevates blood-pressure, but that with a large dose sooner or later the first rise of blood-pressure is followed by a fall, and that, if the doses have been overwhelming from the beginning, there may be a primary fall and no rise of pressure. What is the cause of this rise of pressure? Here again we find ourselves upon uncertain ground. Reichert has shown that after breaking off of the medulla, caffeine still causes a rise of the pressure, in other words, after paralysis of the central vaso-motors caffeine still elevates the pressure. Whether that elevation be through action upon the peripheral vessels, or by an action upon the heart, still remains uncertain except that we have this one guiding fact, namely, it is proved that caffeine acts upon the frog's heart; and therefore under the law I spoke of in my last lecture, we know it must act upon the heart of the mammal. The pulse is not slowed by this drug. Sometimes it is slowed, I should say, and sometimes accelerated. There is, however, no stimulation of the vagi. We have in caffeine a mild stimulant to the heart and a powerful stimulant to the kidneys which is able to serve us somewhat in heart disease, and is especially useful when there is dropsy in a case of heart disease.

There are other remedies in the treatment of chronic heart disease which are also valuable. Prominent among these is strychnine. I want to call attention to the fact that strychnine is one of the most powerful of the vaso-motor stimulants we have, and that it probably has some action on the heart. It stimulates the vasor-motor centres. It is a centric stimulant. The respiratory centre, the vaso-motor centre, the motor centres, all feel the influence of this powerful stimulant, and strychnine, therefore, serves us in cases of heart disease well, as an aid to other remedies when we want especially to tone up the vessels. I want just here to put in a word for the value of a certain

remedy in these cases which perhaps never has suggested itself to your mind as a cardiac stimulant and which is no cardiac stimulant in any proper sense of the term, but which is an invaluable aid to these drugs, and the use of which will, I believe in many cases, bring success when without it your other remedies would fail. I refer now to calomel. Probably most of you are familiar with the work of Jendrassik, which has been imitated and followed and elaborated by numerous clinicians and which proves that calomel is often a very valuable diuretic, especially in cardiac dropsy. Jendrassik's method consists in giving a grain of calomel every one or two hours, six to nine grains a day, for two, or three or four days, guarding the calomel by the use of opium, and he affirmed under these circumstances that calomel would bring on frequently violent diuresis. I am perfectly clear that his statement is correct and it is after all but another instance of how the old clinical knowledge of our forefathers, which in our half-light of science we often forget, comes up in perfectness and beauty when science shines out with more light. I remember Dr. George B. Wood always taught us that *the* diuretic combination in cardiac dropsy was squill, calomel and digitalis. We trod calomel under our feet, and I remember how we laughed in Philadelphia when some mountaineer said he was curing diptheria with calomel; but to-day with us every man is treading in the footsteps of the backwoodsman. I have seen calomel act well as a diuretic not only in cardiac dropsy but in the most advanced kidney disease, and even a few days before the post-mortem showed that scarcely a trace of structure could be found in the kidneys. It is not, however, this use of calomel I want to call your attention to chiefly or solely. The greatest strain of cardiac disease comes upon the venous circulation, and when the blood is backed upon the vena cava what is first affected? The liver—so that you can hardly find a bad case of heart disease in which the engorged and swollen liver does not come down below the ribs. Now, under these circumstance mercury will often bring on billious excretion and relief to the liver. My own experience is very positive that if you will add a careful use of mercurials to the employment of remedies I have been speaking of, you will get results in old heart disease you cannot obtain in any other way. I believe that small doses of mercurials are not sedatives to the general nutrition, but that the minute dose of mercury is really a tonic; and I have myself found the greatest service from the use of small doses of corrosive sublimate in the treatment of various forms of neurasthenia; one-hundreth or one-sixtieth or one-fourtieth of a grain three or four times a day often has a marked influence in some cases.

A lesson I want to leave with the younger men is, that in heart diseases we must never give up the case. A year or two ago I saw a case to which I called Dr. Pepper in consultation. The woman had not been out of bed for a year. It was Dr. Pepper's view that the mitral valve was practically all gone and the case hopeless. I, in the first place enjoined absolute quiet. In the second place, I used massage very carefully, seeing always that the strokes of the massage were directed toward the centre so as to aid in the carrying in of the lymph exudations and of the venous blood to the centre. I put the woman first on calomel in such doses as to get her liver in action, and then I used digitalis; to-day with strychnia with minute doses of mercurials; to-morrow, when the digitalis was losing in its power a little I slipped in strophanthus, and when strophanthus was wavering, I put the woman back on digitalis with caffeine, taking care never to give the caffeine after three or four o'clock in the afternoon, so as to avoid the danger of keeping the patient awake and producing a peculiar nervous erethism. Thus, working the patient along with rest and very careful feeding, and mercurials and a little iron and digitalis and strychnia and caffeine, I so far restored her to health that she was able to go to Europe on a pleasure trip, and still lives in comfort.

GUAICOL-PIPERAZINE. A NEW REMEDY IN THE TREATMENT OF TUBERCULOSIS.

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Part I.

WHEN Koch gave to the world the product which it was supposed by many would revolutionize the treatment of tuberculosis, there were those brave enough and wise enough to stand firmly against the use of the discovery, as not only a mistake, but as an operation very likely to be followed by serious consequences.

The earliest analysis of this famous preparation for sub-cutaneous injection showed that *phenol* was certainly observable in its composition. There are those who claim that the beneficial effects of the injections, and the curative influences on the treatment of lupus were owing entirely to the presence of this powerful antiseptic; and such a position is reasonable, if we are to give any credit to the actual beneficient action of the tuberculin, and not attribute all the good results to mental impressions acting more or less as a mind cure. It is even at this day early to form an opinion upon the merits of any treatment which such a learned scholar and investigator as Koch may offer, and we can reasonably hope that the mighty science which he is so able to master and make subservient to him, may yet disclose to us great triumphs in the art of healing, in tuberculosis and other diseases.

In a recent lecture on surgery, Dr. Cheever, of Boston, makes use of the following language concerning the science of medicine:

"The difficulties of diagnosis in medical practice, and the doubts about the effects of drugs, make the practice of medicine full of uncertainties. . . . Our mistakes in medicine are more apt to be concealed, and we cannot learn as much from them in consequence. I think there is no doubt that medicine requires a higher grade of intellect and more judgment than the practice of surgery."

The science of medicine is more exact at the present day than when "shot gun prescriptions" were considered scientific, but there are many physicians who prefer such complicity and haphazard dosings, even at the present day, to the more rational and more truly scientific use of one remedy at a time. To watch and ascertain the real action of our remedies, one preparation gives us all the difficulties we can hope to master. One medicine, given after careful preparation, and by a skilled physician, is more likely to be curative, than the formidable mixtures which contained so much which was likely to neutralize any beneficial action. "Tuberculosis is a curable diaease. Confidence in the resources of the therapeutic art is a prerequisite to its successful exercise. Especially is this true in the treatment of disease, in which so much depends on the minute attention to details and the co-operation of the patient is so important an element."—Cohen. Guaicol-piperazine is a combination, but its elements are compatatible and operate harmoniously, each element contributing to aid in disinfection and in antiseptic action. Recovery occurs so frequently spontaneously, and post-mortem examinations so often reveal lesions undoubtedly tuberculous which have healed, that we have a good right to take courage and persevere with the methods which modern science has placed within our reach. All this valuable experience, all this patient, unselfish work of the best of modern physicians is placed in the hands of the laborers of the eleventh hour, by those who have borne the burden of scientific toil and investigation.

When we look back upon the difficulties which confronted our fathers and grandfathers in their noble calling, we may most heartily acknowledge our great indebtedness to those who have accomplished so much, and who have labored so successfully.

Consumption is undoubtedly a formidable adversary of mankind, but much of its former terror has been controlled and much of its ability to inflict suffering mitigated.

It does not seem very long ago when we stood watching Lister perfecting his plans for the great advance in surgical treatment which was to follow his antiseptic surgical procedure. A quarter of a century with carbolic acid has demonstrated that like opium and quinine and calomel, the antiseptic properties of carbolic acid are positively beyond a peradventure.

Science has toiled and labored to separate the essence of this wonderful preparation from all that is crude and unnecessary for the welfare of medicine.

The list is a long one, of the preparations which have appeared, all more or less valuable, but this most recent triumph of medical and pharmaceutical skill seems likely to prove superior to any preparation yet presented to the profession.

Its action is energetic and thorough, and it can be relied upon to increase the favorable symptoms, decrease the spread of the disease, and finally to prevent its existence.

Its history is so far very assuring, and it is likely to become a valuable aid in controlling and exterminating the disease for which it has been so highly recommended.

Consumption is, generally speaking, a preventable disease, and is without doubt to be attributed in most cases to neglect of the laws of hygiene. Its origin is to be sought for in weakened constitutions; in homes where sanitary conditions are more or less wanting; in habits which prevent proper expansion of the chest, and where air more or less vitiated is breathed, instead of pure air containing the ingredients necessary for health and life. It depends largely upon improper food and clothing, unhealthy homes, deprived of needed sunlight and poisoned with damp and musty atmosphere, unfit for healthy people to breathe. It is found in those whose habits are sedentary, and where exposure to raw and chilly winds takes place in bodies whose circulation is not strong enough to react after exposure. Statistical inquiries on mortality prove beyond a doubt that of the causes of death which are actually in action, impurity of the air is the most important.

It is not difficult to imagine the condition of lung tissue long exposed to influences so deadly, and especially so when vital action has been too feeble to maintain a normal pulmonary circulation. Instinctively we are forced to concede the fact that antiseptic treatment is pre-eminently essential.

If we can obtain for our patients residence in a climate like that to be found either in Colorado, New Mexico, or even in the Texan Panhandle, we can bring to the lung tissue at once antiseptic treatment, but comparatively few can enjoy the great boon of being sent to our national sanitary regions, which for so many years I have called our health section. It is on this account I have devoted much time, in the hope that we may rival England's noble charity, the National Consumptive Hospital, by inaugurating in New Mexico, at some abandoned military post, a National Sanitarium for consumptives. A bill to carry out this worthy charity is now before our national Congress.

From the earliest times, the odors of the forest and the vapors of tar have been held in high esteem by the profession and laity as well.

Antiseptic treatment in some form is that which has never been abandoned, and for which our best workers are giving careful attention to-day.

In the *New York Medical Record*, of Nov. 13th, 1886, Dr. John Blake White published a valuable

article on "The Treatment of Consumption by Intra-Pulmonary Injections."

"So far as this method is concerned, I can assure you that my confidence in it increases with my experience. The cough, expectoration, and local soreness about the cavity were remarkably controlled by the intra-pulmonary injections. The debilitating night sweats were always checked, while the patients undeniably improved in flesh and strength during the continuance of the treatment. When much dyspnoea was experienced the injections exercised a soothing influence upon the respiratory centres, while the appetite invariably received a material stimulus.

"The physical condition of the cavity is changed; the walls become dry, the secretion is greatly lessened. In place of the loud, gurgling crepitation there is heard the larger crepitation, which in turn, is replaced by finer crepitation, until, after several administrations of the carbolized iodine by intra-pulmonary injection, all moist rales disappear."

These investigations of Dr. Blake did not attract the attention they deserved, and a valuable treatment was allowed to pass out of sight and to be recalled by the later efforts of Koch. In view of the success which attended these experiments with comparatively crude materials and instruments, we may justly affirm that with the modern appliances at our command, and with the perfect preparation of guaicol-piperazine we can treat cases of tuberculosis with greater skill and accuracy than heretofore, and with greater success. With the intra-pulmonary injections, and with the internal exhibition of this excellent product, combined with climatic and hygienic accessories, who shall say we have not arrived at an almost ideal position in combating what has been one of our most formidable adversaries? True it is that the greatest encouragement has attended well-directed efforts in the cure of tuberculosis, and it is this amelioration and more or less universal weakening of the scourge, which affords us the right to hope for great advancement in therapeutic progress for this preparation of guaicol-piperazine.

The cough is usually increased after the first injections, but this is quickly overcome. The respiration usually becomes more easy and regular, while all the most troublesome symptoms are soon relieved. The injections have been usually administered once each week, and I have found that the lung manifested a greater degree of tolerance when the intervals were not prolonged, and the operation was regularly performed.

The object of this treatment, briefly stated, is for both local and general improvement. A modification of the condition of the cavity itself to such degree as will arrest the formation of pus and encourage its cicatrization and contraction.

More recently Dr. White has published, in the *New York Medical Record* of March 21st, 1891, experiments with iodide of gold and manganese, but in the writer's opinion, his original investigations were the most important, and most likely to have permanent value. Dr. White's syringe for hypodermic medication, made by Messrs. George Tiemann & Co., is in our opinion the most perfect instrument of the kind yet invented, and as such it is to be highly recommended for this method of treatment.

Dr. Shurly publishes the following directions for use of the solutions:

"As the chemicals may cause considerable pain to some patients when injected under the skin, the site chosen may be previously treated by the application for two or three minutes, of a wad of flannel which has previously been saturated with a mixture of ether and chloroform, (equal parts), or ether (two parts) chloroform (two parts) and menthol (one part), or better still, one of these mixtures may be sprayed upon the part. With many, however, the pain is only momentary, and they will not require such preliminary treatment. The injection may be made at any part of the day, and without reference to the temperature of the body. The evening will be found generally acceptable to the patient. Although the fluids may be injected at almost any region of the body, the gluteral region will be found preferable on account of the loose cellular and adipose tissue of the part, and because there is less danger of abscess or sloughing of the skin.

"Any hypodermic syringe can be used. Care should be taken to keep the syringe clean. It should be washed with hot water and then with alcohol or a five per cent. solution of carbolic acid, directly after its use. Drawing a little kerosene oil in occasionally will prevent the packing from getting too dry."—*Hare's Therapeutics.*

The title "creasote" belongs to a product of distillation of wood-tar, and much confusion has of late years arisen from its application also to certain products of distillation of coal-tar, as in the title, "coal-tar creasote."

This confusion, furthermore, has been worse confounded by the too frequent commercial trick of selling the coal-tar product in substitution for the wood-tar creasote proper.

Here creasote is recognized by the U. S. Pharmacopœia under the title crersotum—creosote, and is thus described:

"An almost colorless or yellowish, strongly refractive, oily liquid, turning to reddish-yellow or brown by exposure to light, having a penetrating, smoky odor, a burning caustic taste, and a neutral reaction. It is inflammable, burning with a luminous, smoky flame.

"Creasote is soluble in about 80 parts of water at 15° C. When applied to the skin it produces a white stain. Creasote does not coagulate albumen (difference from carbolic acid).

"Creasote is chemically a mixture in varying proportions, of phenols, of which the principal ones are creosol, methyl-creasol, phlonol, guaiacol, methyl-guaiacol and phenol proper (carbolic acid).

"These bodies belong to the chemical group of which carbolic acid is a member, and their asso-

ciates in creasote give this substance almost identical properties in respect of action upon living things with carbolic acid. Physiologically, toxicologically and therapeutically, therefore, creasote is practically a twin with carbolic acid."—DR. EDWARD CURTIS, "Ref. Handbook of the Med. Sciences, Vol. II. p. 332."

LIFE IN THE CELL.

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WHEN the distinguished physiologist and pathologist, Rudolph Virchow, gave to science the four pregnant words, "omnis cellula e cellula," he promulgated one of, if not the most important single fact in the whole realm of the scientific knowledge of the present day. The generation of a cell by a cell is the fundamental principle in the innumerable processes of the organic construction of all animate things, and these processes must go on regularly and uninterruptedly as long as the creature or the thing created continues in animate life, yet the cardinal fact of cell-genesis and cell-proliferation, is only one of the vast number of vital phenomena attendant upon cell evolution and the manifestations of cell-force, and the institution and maintenance of life itself is by no means the only product of the operations of cell-force, but all the powers, attributes, faculties, sensibilities and perceptions of whatever "lives and moves and has its being," from the lowest to the highest in the vast domain of creation, must claim the same common source of origin, and date inception and all future enlargement and development from what is now known as the "primordial cell." In a few words, terse and simple, Lionel Beale has given the sum and substance of cell-life and cell-growth, and nothing can be added to give them more significant completeness. In his work upon "Bioplasm," he says: "Nothing ever did, ever can, or ever will live, except through cell instrumentality." Of course, the processes of cell-life, as set forth in the many and various works upon histology, cellulogy, etc., are too well known to need more than occasional reference to them here. But there is a department occupied by the operations of cell-force, which, as far as we are aware, has not been made the subject of investigation, though to us it seems eminently worthy of the fullest consideration, and all the more so because of the doubts and perplexities that will beset whomsoever undertakes to remove the doubts and perplexities and solve the difficulties. This being so, the reader can well understand with what a sense of inadequacy and incompentency we venture upon the task set before us, and he may be inclined to deprecate the rashness and the hopelessness of the ambition that urges the attempt. But it is in that very hopelessness that is concealed the spur that compels and that "pricks the sides of our intent." The undertaking of this task is not the first occasion upon which we have run the risk of the "eye askance," and the ominous headshake of disapproval, but we have already run that gauntlet in our efforts to learn something not laid down in the books about the nature and functional properties of the nervous matter that blesses us with the powers of seeing, hearing, smelling and tasting, and we have been cheered and encouraged by so many nods of approval, that we are going to try it again, but this time—we may as well say it at once—we propose to test the endurance of our reader, and to challenge his most charitable credulity and forbearance. A professional friend wrote to us from the South in relation to our new views of nervous matter, and said: "The truth *is* the truth, whether we believe it or not." We shall take that bit of wisdom for our text, and start again on the quest for *truth*, and hold on to what we can find until somebody says "you are wrong," *and proves it.*

In the "book of books," we read "In the beginning was the Word—λογος—and the Word was with God, and the Word was God; the same was in the beginning with God," and from that beginning worlds were created and now "roll in space." In reverential paraphrasis of this warrant and lesson transmitted from its divine source, let us take our text thus: In the beginning was the cell, and the cell was the prototype of life, and the cell was life; the same was in the beginning with life. Virchow said, "omnis cellula e cellula," thereby signifying, in its strict interpretation, the power of the cell to recreate itself. Had he said omnis vita e cellula—all life is from the cell—then he would have "builded better than he knew." God said, "Let there be light, and there was light," and He said let there be life, and there was life, and that life took cell form, and the issue was multitudinous life, embracing all forms from lowest to highest, from simple to complex, from protozoon to man.

Then in the construction of all created things, what was the potential factor? By common consent, the cell *is* that factor, and the cell that gives life—which, for want of a more appropriate name, let us call vitagenic life-giving—prevails in every possible form of life, and through all its gradations until we reach its highest perfection in man. As he is beneficiently endowed with all the attributes and powers "that give the world assurance of a man," then those attributes and powers are but the emanations from the forceful operations of the vitagenic cells that begot him, constructed him, maintained him, and must maintain him through all the phases of life, and on to the end when he crumbles into dust, 'and the place thereof shall know him no more.'" Life then, terrene and fleeting, is but a series of cell evolutions, and as Zeno said of it "a constant struggle against death," and death is but the triumph of the natural tendencies to dissolution and decay, or the transplantation within the body, of other cells, whose toxipherous elements shall determine the mode and form of death.

If life then begins with the primordial cell,

whence comes the primordial cell? Ah! "there's the rub," and there's where we have to hang our head and say under our breath "Peccavi" whenever that question is asked. If we let our thoughts and speculations run behind these phenomena, then we are brought face to face with that other momentous and seemingly never-to-be-decided problem of "spontaneous generation." There be "soi-disant" philosophers, who deny the existence of matter, and proclaim that there's no such thing. For all such we have no sort of use, nor for their doctrines. There's more than enough in the study and effort—often vain—to find out the secret workings of numberless functional phenomena of our material body, and the material agencies that produce them, than will last us for a lifetime, ay, even though another were added to it, and the empty nothingness of the outgivings of these worshippers of the "immaterial," seems to us "pap for sucklings." Our mental maw is agape, and craves stronger meat; the other would soon create a "goneness," both gastric and mental, and we'll none of it. How can it be otherwise with these worshippers and pseudo-philosophers? What does the large majority of them know of the revelations of science that are constantly unfolding the hitherto hidden "arcana" of human life in the human body? "Do men gather grapes from the thorns, or figs from thistles?" The eagle looks at the sun with eye unblenched. Nature is good, and provides him with the material instrument that can defy the god of day. But the "immaterial" man has no eyes to see the effulgent rays that are perpetually shedding luminous light upon the pages of ever progressive science, taking her lessons and recording her experiences, so laboriously wrested from the secrets of the material things of the world. No, the immaterial man gathers no grapes, and the thorns of ignorance, in secret, prick him. Neither does he gather any figs, but, like the fabled ass, tries to content himself with the thistles. His are only fruitless and meaningless speculations, that only serve to fascinate and mislead restless and prurient imaginations. So far as we know and believe, they have never done any practical good yet, and we do not believe they ever can or will. They beget superstition and unbelief, and emasculate and belittle the mind in its unsatisfying quest after truth which can never be found in immaterial nothingness, the "feufollet" that has but too often lighted the way and opened the door that only opens to receive the hapless victims of insanity, and closes, to shut them in, and hide them away, perhaps forever, from the joys of life, and the ministrations of love. Turn we now to more tangible things. There's plenty of food for thought, and the promise of more remunerative labor here in the study and contemplation of ourselves, our bodies and their indwelling powers, of which they are but the physical and material agencies whereby those powers are made manifest, and work for our good or evil, as we elect. The old Greek was wise, who said "γνωθι σεαυτον," know thyself, and that lesson is as useful to-day, as on the day of its Hellenic birth. To know what we are, how we are made, and the responsibilities of our physical and mental powers, is knowledge good and wholesome. If we be spendthrifts of them, we but defeat the purposes for which we were made, and the materials of life have been thrown away and wasted in our make-up, and like poor disappointed Keats, "our name is writ in water." And now we have reached the height where we would be, and a dizzy height it is. But from it, we can, as one looks upon a landscape, survey the broad field of investigation, inquiry and speculation that is spread out before us. There are seed to be sown, and a tillage to be applied, that gives promise of generous yield. The soil is rich and fertile, and has long lain fallow, but it holds within itself ample reward, if we do but know how to employ the proper kind of husbandry.

RETROSPECTIVE DIAGNOSIS OF HEREDITARY SYPHILIS.

By Louise Fiske Bryson, M. D., New York.

In the *Gazette des Hopitaux*, January 5, 1893, there is an abstract of a clinical lecture on hereditary syphilis, given by Tournier at the St. Louis Hospital in Paris. The diagnosis of hereditary syphilis must be based upon ocular evidence alone, since information from the family is meagre and often unreliable. A history of infantile polymortality is of great significance in making a diagnosis, but beyond this it is unwise to depend much upon what is told verbally. Hutchinson's triad of symptoms, notched teeth, interstitial keratitis, and inflammation of the middle ear, are unmistakable signs. Chronic lesions of the testicle are also of frequent occurrence in hereditary syphilis.

But there are three important points that aid materially in correct diagnosis, points not so universally emphasized as Hutchinson's triad. These are: the general appearance of the patient, the cicatrices on the skin and mucous membranes, and the deformities of the bones. Hereditary syphilitics rarely develop normally. At fifteen, the child appears to be about ten. Persistent childhood best describes the condition, owing to the low stature and slight body. Some hereditary syphilitics are veritable dwarfs. Pileous development is always late. Scars upon the skin and upon mucous surfaces that are of great diagnostic value, present four definite characteristics: their size, configuration, grouping and locality. They are very small, almost minute. In form, they are like a rounded bow, an arcade, or a serpentine curve. In regard to grouping they are arranged in bunches that are joined at the sides. The scars of hereditary syphilis that are the remaining traces of earlier eruptions are found in certain special regions; at the commissure of the lips, about the circumference of the nose, in the throat, and particularly upon the buttocks and in the lumbar re-

gion. Ulcerations of various kinds and absolutely non-syphilitic do occur in the lumbar regions and upon the buttocks; yet lesions and scars in this locality must ever be regarded with suspicion.

The bony skeleton suffers most of all in hereditary syphilis. Here are found the most profound lesions, the most strongly marked, and the most persistent.

They can easily be discovered in the skull, in the face, in the bones of the extremities, and most notably in the tibia. In the cranium, the forehead presents the greatest abnormity. It bulges outward, the so-called square or Olympian forehead; or it may be shaped like the keel of a boat; or symmetrical eminences may be present. There are various protuberances about the skull that are due to former periostoses and exostoses. The transverse diameter of the head is increased, often in marked degree. This enlargement may co-exist with a flattening of the top of the head that depresses the median portion and brings into bold relief the two sides, the "*paire de fesses*" form as Parrot calls it. This is the typical syphilitic head. The two lateral halves often present marked asymmetry. Children with this particular abnormity do survive and develop sound intellects. At the same time, it is well to remember that such infants often fall victims to hydrocephalus. The characteristic deformity of the face is that of the nose, of which there are two types. In the first, the upper part of the nose seems to have fallen in, and the tip turns up; in the second, the lower portion of the nose is shortened and appears in some way to be absorbed into the upper part. There are also less typical nasal deformities, as when the nose is flattened at the base or badly formed, the result of simple dystrophia and not of necrosis. There are protruberances and hyperostoses in various parts of the osseous system, particularly noticeable at the level of the epiphyses, especially at the upper extremity of the tibia, and at the lower extremity of the radius and of the ulna. Bnt the tibia constitutes the special revelation of syphilis, the key, the clue. Its form alone will make plain the true condition. It is large, thick, and badly shaped; widened, depressed at the middle portion; with the crest so much increased in size as to present a plane face; and the whole showing a bony deposit that appears to be anteriorly subjoined to the tibia proper. In general effect, the bone is like the blade of a sword. This anterior bony deposit sometimes deceives the eye as to the real increase in volume. This sword-blade conformation of the tibia is never found in any condition other than hereditary syphilis. It is a pathognomonic sign. In the arms, legs, and chest, there may be incurvation of the bones. This has not the same diagnostic significance as the tibial deformity, for bowing or curvature of bone is also present in rachitis. Now rachitis is sometimes a consequence of hereditary syphilis, but not always. Parrot earlier demonstrated that, in a syphilitic family of five children, four die, and the survivor is rachitic. But Parrot's second proposition, that hereditary syphilis is the only cause of rachitis is now universally rejected. The chronic weakness that hereditary syphilis entails counts as a factor in defective higiene, the true cause of rachitis in general. Rachitis in hereditary syphilis is, therefore, a distinct lesion, one that is indirect and parasyphilitic.

AMONG THE JOURNAL CONTRIBUTORS.

(THIRD PAPER.)

BY SHELDON LEAVITT, M. D.

USE OF THE DRAINAGE TUBE IN ABDOMINAL SURGERY.

IT is amusing to see how differently men interpret the causes of their successes. When Edison was asked for a motto for the youth of the coming generation, based upon his own views of life, he said, "Never look at the clock." He is doubtless a man who possesses the power of concentration to a marvellous degree, and when set upon a still hunt for something new, he eats, drinks and sleeps in his laboratory, but does very little of any one of these. Another one equally famous for his achievements says, "Watch the clock and observe scrupulously all the appointments of life." With respect to sanitary conditions, one who has preserved his health and strength to a noticeable degree advocates the regular indulgence in athletic exercises as a *sine quinon;* while another who has met the strain of life with equal success says that he takes but little physical exercise, and never walks when he can ride.

With respect to abdominal surgery we find much difference of opinion among those who by reason of their stupendous achievements are entitled to the great consideration. "In my own work," says Howard A. Kelley, in *Practice*, "I used to drain from 75 to 85 per cent. of all cases; to-day I am draining but 10 to 15 per cent, and my comment is that I am doing far better surgical work than I did five years ago."

Dr. Kelley has been having wonderful success at Johns Hopkins, and his opinion is entitled to great consideration; but over against his opinion is placed that of Joseph Price, who is equally successful in abdominal work. "My experience with great numbers of angry troubles strengthens my confidence in drainage," says the latter, in *Annals of Pedology*. "Of course it is important to know when and how to use it. The man who tells us that he cannot remove the ovaries entire, also tells us that drainage is excessively used. Another tells us that drainage is harmful, and that he never operated for pus."

Price thinks that "the resources of our surgery have been greatly added to by our improved instruments and materials. A large share of our surgical success is due to good instruments and pure materials, allied with trained, vigilant nursing." Then, too, we are to remember that there is a personal equation about it all, the real value

of which cannot be estimated. It is a fact that some operators, though scrupulous with regard even to the most unimportant details, meet with indifferent success; while others, though disregarding what are commonly deemed essentials, achieve astonishing results.

INTRA-UTERINE USE OF THE GALVANIC CURRENT IN NORMAL PREGNANCY, WITHOUT INTERRUPTION OF GESTATION.

Dr. Harn, in a discussion on "The Relative Foetcidal Value of the Galvanic and Faradic Currents in Ectopic Gestation," at the October meeting of the American Electro-Therapeutic Association, held in New York, (*Am. Gyn. Jour.* Vol. 11, page 766) says that he made an intra-uterine application with a current of forty milliamperes. in a woman who was not known at the time to be pregnant, wherein the pregnancy continued uneventfully till the seventh month, and eventuated in the birth of a living child.

I had a similar experience, with an equal number of milliamperes. Two applications were made at about the second month, and yet pregnancy went to full term.

CLINIQUE.

SEXUAL IRRITATION.

By Hugh Mathewson Patton, M.D., Montreal, Canada.

KEEPING in my mind the fact, proven over and over in my experience, that remote and often puzzling conditions are a direct result of mechanical irritation of the sexual organs, I have been able in a great number of cases to restore the child to normal condition.

I say "the child," because often the remote reflex symptoms are the only clue a physician has, in children, to direct his examination to the sexual apparatus.

In one case, about four months past, a very pretty little girl of one and a-half years of age was brought to me. The little one, as described by its mother, kept up a constant twitching of the body, rubbing up against the corner of a chair, and seemed constantly uneasy and peevish unless friction of some kind was kept up. In sleep she was quiet. Naturally, I thought that pin worms had migrated from the rectum into the vagina. The different remedies and injections appropriate were used, but still the child kept on the ceaseless twitching, unless her attention was distracted by outside objects. I then made a careful examination of the parts for signs of local inflammatory conditions. The labia were dark red and irritated, but not more than the constant movement would account for. Going higher up, I found the clitoris unusually large but completely covered over and adherent to an abnormally long hood. I broke up the adhesions under chloroform and separated the hood from the glans. A peculiar sensitiveness of the clitoris was apparent. Even when completely anæsthetized, corneal reflex gone, muscles entirely relaxed, the first touch of the director to the clitoris completely roused the child from the anæsthetic. For three days after this little operation the child was entirely free from irritation, and then it commenced; slowly increasing to a degree worse than before. After breaking up the adhesions several times, with the same unsatisfactory result, I called in Dr. Lockhart (Prof. of Gynæcology, Bishop's Medical School), and we decided that there was no alternative but to remove the prepuce and reduce the size of the glans by the galvano-cautery. This was done by a crescent excision, and the raw surfaces united by gut sutures. Since this small procedure the child has been perfectly free, now nearly two months. In no work on surgery or gynæcology did I find the least mention of these reflex irritations of the clitoris, excepting only the "Orificial Surgery of Pratt" (Chicago.) Since then I have read a very full and clever article in the *American Journal of Obstetrics* which throws much light on the subject named in my heading.

In several girls ranging from puberty up to eighteen and twenty, I have found masturbation with all its disastrous train of mental and physical ills, to have resulted from the local irritation of preputial adhesions. It is scarcely fair to blame a girl for perverted morality without first ascertaining if the condition is not due to physical and mechanical rather than to moral causes. We are very careful to recommend circumcision for phimosed boys, even when not suffering from this condition; but are we as careful to ascertain that the morbid conditions so prevalent among girls and young women are not due to some localized malformation of the external genital organs?

Advancing civilization, according to a noted English writer, tends to imperfect development of the sexual organs, and on that theory argues the gradual extinction of the race.

In male children I have found a phimosed prepuce with pin hole orifice, a frequent cause of restless crying and peevishness. Nothing would quiet the child, but the symptom disappeared within a few days after circumcision. In half a dozen cases I have found a complete ring of calcareous matter surrounding the glands and filtered out from the slowly passed urine. No wonder the child cried.

In a case of my friend's—Dr. Griffith—convulsions ceased on the forcible release, by stretching, of the imprisoned glans. The usual symptoms which cause me to examine the parts are: The child is constantly restless, cries all night, urine is dark colored, and if older there are evidences of localized irritation. The boy rubs his legs together, or presses his hand to the part, stoops over to relax the muscles, cries out and tosses in sleep, and constantly wets the bed.

It is safer, with every child, to examine the parts at birth, two months, six months, and one year. I have done this slight operation of circumcision with breaking up of adhesions fifty or sixty times during the past twelve months with extra success.

A CASE OF TYPHOID FEVER WITH A SEQUEL.

BY C. HARRINGTON, M.D., HOUSE PHYSICIAN, WARD'S ISLAND HOSPITAL.

EDWARD A., aged 22 years, was admitted to my ward May 10th, suffering from typhoid fever. The disease ran a slightly typical course, the only dangerous symptom being the high temperature, and ended on the twenty-eighth day by crisis. The third day after, his temperature had been normal; his left leg, upon examination, was found to be enormously swollen, red, œdematous and exceedingly painful to touch, especially over the saphenous vein. This vein could be traced by a dark red line from the saphenous opening down to the ankle, and was engorged with blood. He complained of a heaviness of the leg and of a constant burning pain in it, which at times was sharp and sticking. His temperature did not vary during the attack. The treatment consisted of elevation and the application of a snug bandage which was reapplied as soon as it became loose. He was given, internally, hamamelis. In five days all the above symptoms had disappeared. The case was diagnosed post-typhoidal phlebitis, and while a rare sequela of typhoid, it is recognized as such by Roberts, Osler, and Wyeth.

WHAT BECOMES OF MEDICAL GRADUATES IN THE UNITED STATES.—A correspondent of the *Medical Age* says *(Drug. Circular)* that a large proportion of graduates fall out of the profession, or rather never really get into it. The writer traced after graduation 100 of his friends, especially in the first five years, and found that seventy-five had to resort to other employment; twenty-three received a salary either additional to practice or separate therefrom; fifteen became proprietors of drug stores; three were insurance agents; four "loaned money;" one sold real estate; one was an agent for drugs; one an agent for books; one dealt in patent medicines; two were farmers; one a manufacturer; two gave massage treatment; one sawed wood; twelve gave up in disgust; and one never tried to practice at all—twenty-nine graduates only in 100 devoted themselves to medicine, of whom eleven associated themselves with other practitioners, and in some cases succeeded to their practice.

—In malarial intoxication of long duration, in which anæmia has been marked and in which after cessation of acute symptoms a course of arsenic has failed to bring about marked improvement, rapid return of corpuscle and hæmoglobin to an approximately normal standard has followed the administration of a solution prepared as follows:

Take: Tincture of ferric chloride, 2 fluid drachms.
Diluted phosphoric acid, 3 fluid drachms.
Glycerin, 6 fluid drachms.
Solution of hydrogen dioxide (Oakland C. C.) enough to make 3 fluid ounces.

Two teaspoonfuls in three ounces of water before meals thrice daily.

This is slightly modified from a formula of B. W. Richardson's. It will be practically stable for the few days during which the three-ounce mixture lasts. It is useful in chlorosis and anæmias generally—DR. S. SOLIS-COHEN in *Philadelphia Polyclinic.*

TRANSLATIONS, GLEANINGS, Etc.

RETROSPECTIVE DIETETICS.

BY ALFRED K. HILLS, M.D.,
Fellow of the Academy of Medicine, New York.

Dietetic Treatment of Typhoid Fever.—Dr. W. Beatty, (*Hospitals-Tidende*, No. 22, 1892) regards milk as the best and least injurious food, and, given with a little soda-water, lime-water or pure water, it is well borne by the majority of patients. If diarrhœa be present, then it is best to give the remedy boiled, otherwise rather leave it alone. In the meantime one may give peptonized milk. If the patient can take milk it is the best food for all stages of the disease. If the milk is vomited up or passes away undigested, then whey may be given with good results; but if whey be employed, then one must also give beef tea, with the sediment or beef extract, in order to make up the albuminoids. Many object that beef tea causes the development of gas in the intestines, thus increasing the tympanites. The writer, however, can not confirm this. He regards beef tea as a useful supplement of milk when the patient cannot drink enough of the latter, and, besides, it acts as a slight stimulant. Starchy foods may be given, yet the writer does not often employ them. They produce flatulence, may distress the patient and increase the fever, or even bring it on again. They should be avoided when the patient can drink milk. In grave cases the salivary glands are not functionating, and therefore no digestion can take place in the mouth. The pancreas is also probably similarly affected. If starchy food is to be given, then it should be in the half-liquid form. Whipped eggs are given by some physicians, but the writer rarely uses them. Milk is sufficient, and it is doubtful whether eggs can be digested by typhoid patients. Where a patient cannot drink milk then eggs are a necessity. Give them raw, well whipped and thinned. Two to three pints of liquid nourishment in twenty-four hours are sufficient for an adult, and relatively less for a child. Many of the symptoms of the disease may be managed by taking into consideration the amount and kind of the food.

Diarrhœa.—This is best avoided by not giving too much liquid food. The writer, in his experience, has been but little bothered by this symptom, and he regards its presence as due to incautiousness. Patients have come into the hospital who were suffering from a severe diarrhœa, and, after a restriction of diet were freed from it. It has been his lot to treat constipation oftener than diarrhœa. One should not allow more than two days to pass without the patient having a passage of the bowels, except he has had a severe hæmorrhage from the bowels. At least the second day a passage should be secured in order to prevent the patient from suffering from the retention of feces during convalescence, from which the writer has seen very disagreeable consequences. A restricted diet produces a tendency to constipation, but this is easily removed.

Hæmorrhage.—This is best avoided by a restricted diet. The writer has seen a large number of hæmorrhages where this came on after the patient had drank a large amount of milk. Tympanits is best treated by a restricted diet.

Sleeplessness.—It rarely requires large doses of narcotics. if one avoid too large quantities of nourishment. Patients sleep well on a spare diet. He also thinks that the delirium would be better controlled on such a diet.

High Temperature.—If the temperature runs up to 40° or 40.5° C., it is not advisable to rush to antipyretics, for a cold sponge bath is generally sufficient, and an antipyretic is required only when the temperature is steadily high, morning and evening. A high evening temperature is only of importance when the morning temperature is not one or two degrees lower. The temperature, like the other symptoms, may be controlled by the diet, but it may be asked if this spare diet is sufficient to support the patient.

A typhoid fever patient's diet may be regulated by examination of the feces. If coagula of milk be found, then either too much milk has been drank at one time, or all together, or, again, that the digestive organs are working at a reduced functionability. If the passage of the undigested milk be not stopped, flatulence, diarrhœa, malaise and restlessness, and rise of temperature, will set in. The patient should not have an unlimited supply of drink, as it may cause diarrhœa. Whatever diet is adopted, that should be held to during the remainder of the disease, as the bowels are very sensitive to a change. Towards the end of the third week, when the ulcers begin to form, the diet should be still more reduced.

A very important question is when the patient may be regarded as convalescent, and when, consequently, a change of diet may be allowed. The following are the points:

Roseola Patches.—If these be present then the disease is still present, though the fever and other symptoms have disappeared.

Temperature.—This must be normal, morning and evening, for at least a week, and if the fall has been sudden then a week is not enough. This is an important sign, as the fever may keep so low while the disease progresses, and again, on the contrary, complications may cause it to rise without a restriction of diet being necessary.

State of the Tongue.—This is of less importance. If it be dry the disease is still present. As a rule it clears up when convalescence sets in, but in a number of cases it remains coated until the patient begins to eat solid food, when it soon clears itself up.

Condition of the Abdomen.—The meteorism must have disappeared.

State of the Spleen.—This is an important point. Except those cases where the spleen was enlarged before the disease, any enlargement is a contradiction to changing the diet. The writer has several times seen patients who were thought to be convalescent, yet, having an enlarged spleen, they had relapses when, with an absence of other symptoms, they were allowed a change of diet. Gerhardt remarks that in cases where relapses occur the size of the spleen had not decreased during the afebrile period. In such cases a relapse is rather a continuation of the original disease than an actual relapse.

State of the Bowels.—If the dejections are liquid and of a light color convalescence has not begun. The pulse indicates nothing, as it may be slow during the entire disease and more rapid during convalescence.

In changing the diet it is to be increased in consistency. A sudden change from a fluid to a solid diet will be followed by fever. In a few days one may increase the quantity and not the consistency. The writer changes the diet in about the following manner: First, milk, with the addition of barley flour; after a few days a boiled egg, and a few simple biscuits; then bread, followed by fish. The temperature is carefully watched all the time; if it rises it is sign that the food is too heavy. It is also advisable, even in light cases, to carry out this diet, for in such cases one may be disagreeably surprised by death if a restriction be not placed on the diet.

Vicarious Alimentary Substances and Their Application in the Food of Healthy and Sick Persons.—(Prof. Uffelmann (*Wiener Klinik*).—We understand by vicarious substances a class of substances which are able to reduce the quantity of N and C consumed by the body. If it should be in our power to diminish the oxydation of albumen and fat in the organism of a healthy person by tendering him substances which are savorous, digestible and cheap, we would improve his economic situation, together with his condition of nutrition, and if we should be in a position to obtain a decrease of consumption which is increased in acute and chronic fever, we would exercise a favorable influence on the forces of the patient. Finally, if in convalescence we could favor the restitution of albumen and fat by the administration of vicarious substances, we would hasten the patient's capacity for work.

Vicarious substances in this sense are: the gelatinous substances, the neutral fats, the fatty acids, glycerine, the carbo-hydrates, the pectine substances, the organic acids and their salts, as well as alcohol.

100 grm. gelatine will replace not less than 36 gram. albumen, corresponding to 173 grm. flesh; in the same way gelatine will act as a succedanum of fat, 100 grm. gelatine standing for 25 grm. animal fat. Unfortunately it is impossible to ingest large quantities of gelatine (so much cheaper than albumen) on account of repugnance, nausea and fetid diarrhœas making soon their appearance; yet a quantity of 25-30 grm. in our daily alimentation is well supported and is accepted without any repugnance.

Neutral fat shows a similar action. An addition of fat to the albumen enables the body to be satisfied with smaller quantities of the latter and, with a favorable proportion of fat to albumen to store the latter up. 100 grm. fat replace, or eventually save, 7 grm. fat daily on an average, this would save 5.25 grm. albumen.

Among the various classes of fat butter is most easily digested.

Incontestible vicarious substances are the carbo-hydrates; the saving of albumen by them amounts to 9 per cent. on an average; in the saving of fat 240 grm. carbo-hydrates and 100 grm. fat are isodynamic. As a rule a healthy adult person is able to digest daily without molestion 500-600 grm. carbo-hydrates.

Closely related to the carbo-hydrates are the pectine substances which are contained in the flesh of fruits and which are a chief constituent of fruit-jelly.

As to alcohol, it has been found, that a vicarious action is only obtained by ingestion of small doses, while the use of larger quantities is always accompanied by a decided increase in the decay of albumen.

Gelatine is best applied in the shape of soups and jellies to which condiments are added. Tendons, cartilages, fasciæ and the like, mostly considered as refuse, as well as bones, including commercial gelatine, may be converted into nutritious food according to determined culinary prescriptions which should be studied in their original wordings. Of these dishes a fit use may be made especially for sick persons, gelatine being easily digested. In diabetes too, as well as in gastric catarrh, gelatine has proved to be a good aliment.

In convalescence from severe maladies gelatinous dishes are of peculiar advantage. By adding in this case a very small quantity of albumen, besides gelatine, fat and carbo-hydrates, the body will be maintained in its normal stratus. Under these circumstances every increase in albumen ingested leads to storage of albumen, every increase in non-nitrogenous alimentary substances leads to storage of fat.

For healthy persons gelatinous substances are of peculiar advantage whenever cheap alimentatation is aimed at. Superintendents of people's kitchens, of poorhouses, as well as military administrations are urgently advised by the author to adopt dishes of this description in the bills of fare.

Fat is not well supported by patients in condition of acute fever; for the purpose of nevertheless ingesting the indispensible quantity, it is necessary to make use of mucilaginous soups provided with the easily digested fats of butter and egg-yolk.

In chronic fevers fat is supported much better; it is well known that phthisis often attain a daily consumption of of 120-150 and even 200 grm. of fat. As a rule it is supported equally well by diabetics, acting in their disease as an excellent vicarious substance.

Almost all carbo-hydrates being easily digested, they find an extensive application in the alimentation of patients. They provide the body with carbon, furnish heat and save the consumption of albumen and fat. In cases of acute fever soups of grain-flour, decoctions of bread with sugar, bread-water, sugar-water and gulpo, a very pleasant beverage made of sugar-water and flour are to be recommended. Chronic patients may have, besides the aliments mentioned, some potato-pure, rice-pap and soft bread.

Pectine substances are especially valuable for patients,

since many pleasant dishes are easily prepared with them; among others the numerous fruit-jellies which are liked by healthy as well as by sick persons on account of their refreshing tastes.

As a rule patients in condition of acute fever, with their considerable consumption of N and C and with their reduced power of digestion for albumen and fat, will be given in moderate or small quantities of the two latter substances, while carbo-hydrates, gelatinous and pectine substanaes, as well as organic acids, will enter into their alimentation in larger proportion. In chronic fever larger quantities of albumen, fat and carbo-hydrates will be allowed. Finally in convalescence, for the purpose of replacing the lost albumen and fat, large quantities of both, medium quantities of carbo-hdrates and as much gelatinous substances as the person may support will be given.

RETROSPECTIVE THERAPEUTICS.

BY ALFRED K. HILLS, M. D.,
Fellow of the Academy of Medicine, New York.

Digital Pressure in Hiccough.—Hiccough is sometimes a very troublesome symptom, and in many cases may be difficult to overcome. Leloir, in a case of a child twelve years old suffering from persistent hiccough, applied digital pressure for three minutes to the left phrenic, between the two attachments of the sterno-mastoid. The hiccough stopped and did not recur. He has since used the method in a large number of cases, and always with success. In some cases pressure for a few seconds has been sufficient. in others a few minutes.

Phenacetin in the Treatment of Grip.—Dr. Francis Delafield in the discussion on epidemic influenza before the New York County Medical Society, said that of all the remedies suggested for the treatment of influenza and its complications, such as severe headache or neuralgic pains, etc., he had found nothing so reliable as phenacetin in doses of five grains every two hours. The catarrhal throat trouble, which is often present, he had treated successfully with aconite or soda salicylate with a solution of cocaine for local application.

Therapeutic Value of Electricity.—Max Weiss (*Centrlbl. F. D. Ges. Therap.*) contests Moebius's view that the greatest number of therapeutic successes obtained by electricity are due to suggestion. The Faradic current, he says, has a stimulating action on the skin, nerves and blood vessels. In producing contraction of the muscles it promotes their nutrition, and, as far as possible, prevents their atrophy. The internal organs may also be influenced, and the author says that hyperemic states of the brain and spinal cord may be thus lessened. General Faradization is useful in diminished nutrition and general debility. In these cases the current may be made to pass through the operator, contact with the patient's body being effected by the hand. Galvanism acts as a sedative in neuralgia, but success depends on the density of the current. The Bactericidal action of the galvanic current is referred to. In discussing the number and duration of the sittings, the author says that in cases of acute neuralgia the current should be applied three or four times in the day. In cases of commencing degeneration, the galvanic current may be of service; the motor power of the legs may be improved, and the gait become more steady. Galvano-Faradization is then referred to, and the author says that in recent times he has employed galvano-faradic massage with considerable and lasting success. Faradic baths of short duration and medium strength of current have a stimulating effect or motor activity, and are useful in functional spinal affections, in intestinal atony, and in neurasthenia. Faradic baths of greater strength of current, and somewhat longer duration lessen motor irritability, and are beneficial in neuroses accompanied by spasm, convulsion or tremor. The galvanic bath is seldom used. It is of service in exophthalmic goitre. The author concludes that electricity is a valuable therapeutic agent. The field of its action comprises the numerous neuroses, cerebral and spinal neurasthenia, and neuralgia. Neuritis, early degeneration in nerves, the various forms of myelitis, and the presence of inflammatory products in nerves, tendon sheaths, muscles and joints are also included.

Cerium Oxalate for Hyperemesis Gravidarum.—Cerium oxalate, which was introduced by Prof. J. Y. Simpson, has been resorted to in obstinate cases of the vomiting of pregnancy with remarkable success. Charlton states that he has given it for morning sickness with unvarying success. Dr. James says: "It very seldom fails in relieving the vomiting of pregnancy when given in good-sized doses of one-half to two grains. My experience is that it is the specific in this condition, and that it will act when everything else fails. Here is an illustrative case: Mrs. G. had suffered from morning sickness and excessive vomiting for three months. During the last month the vomiting had been such that nothing could be retained on her stomach. She had lost in weight and strength, was scarcely able to be out of bed, and thought she would die this time. Had been treated by four physicians without effect, and sent for me on June 20th. I examined carefully her condition and prescribed at once cerium oxalate, first trituration, two one-grain tablets. When I called next day, the vomiting was checked, she had a desire to eat, retained her food, and expressed great joy. No return of the vomiting."

Camphor-menthol in Catarrhal Diseases.—Dr. Seth S. Bishop, of Chicago, in a paper thus entitled, reported a large number of cases of naso-pharyngeal catarrh, hay fever, and diseases of the ear as having been treated with camphor-menthol with much better results than menthol alone produced. The presence of the camphor seemed to intensify the action of menthol.

A number of hay fever sufferers, among them the president of the United States Hay Fever Association, had obtained greater relief from this inhalant than any other they had ever tried. The effect of camphor-menthol in reducing turgescence and consequent tumefaction of the turbinated bodies had rendered a contemplated operation for stenosis unnecessary in several cases cited.

Injections of a ten per cent. solution in lanolin into constricted Eustachian tubes had caused them to become patulous. The improved ventilation of the middle ear thus effected, together with inflation with a five or ten per cent. spray of the same liquid in hypertrophic tympanic catarrh, increased the hearing, and produced a sense of clearness and comfort in the head.

Cases of laryngitis, with the voices reduced to a whisper, had been treated with inhalations varying from five per cent. to twenty per cent. in strength, with the result of restoring the voices completely in from twenty-four to forty-eight hours.

No ill results had followed the use of this remedy in the nose, throat, larynx, or middle ear. The ordinary strength of inhalations recommended by the reader was three per cent. of five per cent. for very susceptible or sensitive individuals, like hay fever patients, and ten per cent. for less nervous persons with hypertrophic catarrh, etc. In order to reduce great swelling of the turbinates and relieve stenosis, the solution shall consist of twenty or twenty-five per cent. of the camphor-menthol. The full strength of the camphor menthol applied to eczematous eruptions relieved the itching and dissipated the redness and swelling. Similar results followed its application to herpetic eruptions.

Finally, camphor-menthol contracted the capillary blood vessels of the mucous membrane, reduced swelling, relieved pain and fullness in the head, or stenosis, arrested sneezing, checked excessive discharges, and corrected perverted secretions.

Solar Cautery in the Treatment of Lupus Exedens.—Dr. O. V. Thayer writes (*Pacific Med. Journal*, Aug. 1892) that some twenty-five years ago, while experimenting with a common lens small sun-glass, he focussed the rays of the sun upon a small mole on his arm. Instantly it began to smoke, and within a few seconds it was destroyed. No pain or inflammation followed the operation; the burned

surface healed readily, leaving no trace of its former self, not even a cicatrix. This simple experiment suggested the idea that the lens could be used with success in destroying morbid growths. He at once put this idea to practical tests. From that time to the present he has continued to make use of the solar cautery in a variety of surgical diseases and has rarely experienced any disappointments. It has advantages over and above all other caustics. Some of these are the following: It is, at all times, uuder the control of the operator. Its action stops the moment the lens is removed. No pain follows, as the concentrated sun's rays act as an anesthetic. It will destroy morbid tissue while the adjoining normal tissue remains uninjured owing to its great vitality. Very slight inflammatory action follows its use. The author (who has used this method in more than one thousand cases) gives the history of a patient suffering from lupus successfully treated with the solar cautery.

Hypnotic Action of Trional.—Dr. Brie of Bonn, in a recent article in the *Neurologisches Centralblatt*, reports very satisfactory results from the use of trional in several psychopathic conditions, accompanied by insomnia. In melancholic and hypochondriacal depression, says the writer, "trional always insured a sleep of seven to nine hours' duration, usually acting promptly in about one-half hour without disagreeable effects, while the patients experienced no disturbances whatever on the following day." In these cases it was found better to commence with 2 grammes (30 grains) reducing the amount slowly to one gramme (15 grains). Dr. Brie found trional of special value in the insomnia of hysteria and neurasthenia, in cases which had long remained obstinate to treatment by other remedies. In cases of marked restlessness and maniacal excitement, including paralytic mania, excellent results were obtained in ninety per cent. of the cases under the treatment. In hallucinatory dementia and paranoia, trional always gave satisfactory sleep. Single doses did not exceed 3 grammes (45 grains) and good results were often obtained with one gramme (15 grains). The average dose is 2 grammes (30 grains.)

Terpin Hydrate in the Treatment of Hay-Fever.—Dr. Alexander Rixa (*Therapeutic Gazette*, Dec. 1891) believes he has found in terpin hydrate a preparation which controls hay asthma in a very surprising measure. The drug comes in the market in the form of colorless monoclinic crystals, which melt at 100°C., and has the composition, $C_{10}H_{16} + {}_3H_2O$. He attained the following results from its action: In small doses (from 2 to 5 grains) it liquifies and increases the secretion of the bronchial mucous membrane, and thus facilitates expectoration. In large quantities, however, (in 15 to 20 grain doses), it reduces the secretion and renders expectoration less, until it stops it altogether. In cases of bronchial dyspnea, in consequence of the plugging of the bronchi by too copious secretion, it is of the greatest value. In hay and bronchial asthma it acts like a charm, *i. e.*, by giving it to those who are subject to the disease it arrests the outbreak.

The writer administered it in capsules (5 grains each), in daily doses of from 45 to 60 grains, and more if required, without any disagreeable consequences. The best time for its administration seems to be during mealtime, about 15 grains being given at one dose, three times a day, and, if required, 15 grains at bedtime; and exceptionally, if asthma symptoms appear on damp, cloudy days, fifteen grains more during the night. The results obtained with this treatment were highly gratifying and surprising.

In those of his patients subject to hay asthma he also attained the most astonishing results with the terpin hydrate treatment. Four out of six cases did not have the slightest attack of hay asthma during the whole season, and the other two had but two or three light attacks, which, however, were caused by carelessness and neglect in carrying out his orders.

In all the cases where the remedy did not act promptly for a while, it was always due to neglect and carelessness.

The Use of Tobacco in Intestinal Obstruction.—The following case illustrates the mode of using tobacco in cases of fecal obstruction, etc., as advocated by Dr. W. D. Jones (*Medical News*).

I was called in consultation to see Mary R., a stout, healthy girl of fourteen, suffering from fecal impaction of the large bowel, complicated with an overloaded stomach, the result of having eaten a large number of rather hard apples.

The child was first seen in convulsions, for which she had received the usual course of antispasmodics, with morphine to relieve pain, and apomorphine to relieve emesis, but with no result. I suggested the use of a tobacco enema, made by adding half a dram of good plug chewing tobacco to half a pint of boiling water. Owing to the urgency of the case this was cooled as rapidly as possible, and the entire qnantity injected by means of a Davidson syringe with a long rectal tube. The enema was retained for about twenty minutes, when we had the satisfaction of seeing our patient under the pressure of a double evacuation, followed by immediate relief. The patient's recovery was uninterrupted.

Chlorinated Soda a Specific in Typhoid Fever.—Pearson states, in the *Lancet*, that he has treated several hundred cases of typhoid fever in South Africa, without a single death. His specific remedy is the solution of chlorinated soda, of which he gives 15 minims every three hours, continued until the temperature has been normal for two successive evenings.

Action of Cardiac Remedies.—Dr. John A. Larrabee, (*Prac. and News*) says: The popular error in the profession in regard to digitalis is, that it is a cardiac stimulant. The fact is that it does not act upon the heart, except in so far as it affects the vaso-motor system, causing contraction even of the ulterior arteroles, thereby lessening their calibre. The heart is strengthened by this arterial recoil, just as the narrowing of the nozzle of a hose strengthens the stream from a hydrant. If, therefore, the heart-muscle be weakened by disease—for example, in typhoid fever, from attenuation and hyperpyrexia—the sudden increase of pressure will at once arrest its action. In other words, if the hydrant be rotten, compression of the hose will break it. As the heart is nourished by this arterial recoil during its period of diastole, and as compensatory hypertrophy is the only possible way of overcoming the organic defects of valvular patulency, it follows that digitalis is the only therapeutic agent for such lesions in the left side of the heart. A careful study of the physiological action of the heart, and an equally careful study of the action of digitalis, will, it seems to me, convince anyone of the danger of its use in typhoid fever or diphtheria. Strophanthus is a safer drug than digitalis, and cactina the safest of the three. Each of these drugs, however, has its especial province, which I have carefully noted at the bedside. For example, when organic mischief is to be overcome by compensation digitalis alone should be thought of. When the accentuation of the pulse is imperfect, without organic defect, strophanthus, sparteine and caffeine are the medicines. When there is a want of rhythmical action, debility of the ganglionic centres, cactus grandiflora is the remedy. It is a *donum Dei* in the so-called tobacco heart.

Tobacco Ointment for Rigid Os and Acute Chest Troubles.—(Dr. S. F. Verbeck, *Health Helper*.)—A few years since my attention was called to the relaxing effects of tobacco, and I resolved to give it a trial in conditions where a local relaxant was needed. Consequently I procured a plug of the strongest tobacco I could find, and cutting it up fine I mixed it thoroughly with melted lard, and caused it to simmer on the stove for several hours. I then removed and strained the mixture and put it away in a jar for future use. It was only a short time before I was called to a case of tedious confinement, where the pains were severe and irritating, the vagina was hot and unyielding, and the os uteri undilatable, thin, hard and bonelike and very sensitive. It had that thin, hard edge to it that one often notices in such cases. I immediately thought of the unsatisfactory results I had had from other applications and was then reminded of my tobacco ointment. I lost no time in applying it thoroughly with my finger over the vaginal

surfaces, and over the os and neck and as high up as I could reach on the walls of the womb. What was my delight to notice an almost immediate change in the condition of the parts and a most satisfactory and complete dilatation within about half an hour. There were no constitutional symptoms except a desirable relief from the irritating pains and the appearance of normal expulsive pains. The child was born within an hour. I was so well pleased with my experiment that I naturally tried it again with the same results. Since then I have used this ointment in eleven severe cases of rigid os without once having any unsatisfactory result whatever. In every case the relaxation was complete within an hour, and the termination of the labor was in every way satisfactory. In one of the cases there was a malposition and I was obliged to use forceps, but their use was greatly facilitated by the perfectly relaxed condition of the parts.

I have used the ointment with good results in other conditions. It is especially valuable in acute chest troubles. Spasmodic or mucous croup has lost its terrors for me. This application cuts the condition short abruptly and the child falls into a natural sleep. In that condition known as "a cold on the chest" this application works like magic, and but little medicine is required. In asthma and acute asthmatic bronchitis it greatly facilitates a cure, and enhances the action of the indicated medicines. I have never seen any undesirable results in adult or child, and do not think such will occur. I believe its range of influence will be greatly widened by further use and observation.

Hydrastinum in Metrorrhagia.—Falk, (*Centralblatt F. Gynekologie* No. 8, 1891) has found that hydrastin is a heart poison, while hydrastinin is not. The latter has the advantage over hydrastin of producing considerable and regular vascular contraction. This conclusion was based upon the results obtained from treating twenty-eight cases of metrorrhagia from hyperplastic endometritis, congestive dysmenorrhea and metrorrhagia accompanied by vertigo. In the former the metrorrhagia disminished. The chloride of hydrastinin, in a ten per cent. solution in water, in doses of five to ten cgr. (1-11-12 gr.) is the preperation employed. It should be especially used before and during the time when hæmorrhage occurs.

Santonin as an Emmenagogue.—Dr. Bergey writes in the *Therapist*: "I was called to see Mrs. A. B., aged thirty-six years, and found her in great agony from uterine colic. The pains had lasted for several days, and gradually assumed a graver form, notwithstanding the various domestic remedies which she had employed. Hot water bags were applied and frequently changed. Hot drinks were freely administered and frequently repeated, but without affording any relief. The pain was so severe that it was necessary to resort to large doses of morphine to get it under control. In the meantime a ten-grain dose of satonin was administered. The menstral flow became fully established by the second day after administering the santonin, and the patient rapidly recovered. To avoid such serious crises at future periods, I prescribed several ten-grain powders of santonin, one to be taken at night, at the first approach of the menstral molimen. In this manner the suffering has been warded off at each subsequent period and menstruation established each time without any disturbance.

Arsenic as a Prophylactic.—Dr. C. F. Bryan, in his address as President of the Leicester Medical Society (*Br. Med. Jour.*, Nov. 26, 1892.) stated that he had been led by a paragraph in the *Practitioner* some ten years ago, to the effect that persons taking arsenic were insusceptible to vaccination, to try the drug as a prophylactic in scarlet fever. He believes that an epidemic was checked in the Leicester workhouse in 1882, and mentioned that a year later in a family in which one child had severe scarletina he put the other two children on arsenic, and they did not take the disease, though they continued to be about the patient until her death three weeks later. In another family a boy aged seven, had scarlet fever, but the four other children, whose ages ranged from three to eleven, did not contract the disease, and the mother, who aborted during her attendance on the chiid, did not suffer. He also advanced some evidence suggesting the value of arsenic as a prophylactic against diptheria and influenza. He gives gr., 1-40 of arsenious acid in pill, or ɪj of liquor arsenicalis, in mixture three times a day for the first week, and afterwards twice a day.

Testicle Juice in Cancer.—Testicle juice for the cure of cancer by hypodermatic injection, is the latest outcome of Brown-Sequard's researches. In the *Sem. Med.*, September 7, 1892, after referring to the previous reports on the value of the remedy as a tonic and stimulant to the nervous centres, he gives an account of a case communicated to him by Dr. Labrosse, of Muslapha, Algeria, who had treated by injections of testicle juice of rabbits. a woman with cancer of the womb beyond operation. After twelve injections the patient, who was in the cachetic stage and was so weak that she could not leave her room, was able to walk about and go driving; also that the discharge, which had been very profuse and offensive, ceased altogether.

Yawning as a Remedy.—According to current ideas, yawning in good society is an improper sign of weariness; according to the teachings of physiology, it is a long drawn forcible inspiration followed by a shorter respiration; according to Dr. Naegeli, it is one of nature's many remedies, the proper application of which depends upon good judgment.

In yawning, not only the muscles which move the lower jaw are used, but also the breathing muscles of the chest, and he who yawns to his heart's content also raises and extends the arms. In the deepest inspiration the chest remains extended for a short time, the eyes are almost or entirely closed, the ears somewhat raised, the nostrils dilated. Inside the mouth, the tongue becomes round and arched, the palate stiffly stretched, and the uvula is raised, almost entirely closing the space between the nose and throat. At the beginning of the inspiration a cracking noise is heard in the ears, a proof that the duct leading to the hearing also succumbs to this stretching.

If the yawning has reached the deepest point, it will require from one to one and a half seconds for it to become noticeable to the hearing. In order to observe this, let one place himself at a sufficient distance from a clock, so that its ticking will not be easily heard, and yawn deeply. During this deep breathing the sound of the clock is not perceptible to the most careful listening. All this simply goes to show that yawning sets a number of muscles to work, and particularly those which are not directly subject to the will.

Although one yawning does not present a very agreeable appearance, it is very agreeable to himself, for the stretching of the muscles causes a feeling of comfort; it acts like massage, and is the most natural gymnastics of the lungs imaginable. Dr. Naegeli, therefore, advises people not to concern themselves with so-called decency, but every morning and evening, and as often as possible, to exercise the lungs and all the muscles of respiration by yawning and stretching, as many chronic lung troubles may thus be prevented.

Dr. Naegeli orders the patient troubled with too much wax in the ear, accompanied with pain, to yawn often and deeply. He also, in cases of nasal catarrh, inflammation of the palate, sore throat and earache, orders the patient as often as possible during each day to yawn from six to ten times successively, and immediately after to swallow. The result will be surprising. If one looks upon yawning as a natural massage for certain organs, he will reach a satisfactory explanation of its curative properties.

Salt and Health.—Salt and health, the *Northwestern Lumberman* says, go together in Michigan. In Saginaw and Bay counties nearly 2,000,000 barrels of salt are manufactured yearly, and we are not aware that any is made except by sawmill and planing mill operators. As now conducted no fuel account enters on the expenditure list, as exhaust steam from the mills is used. The manufacture of salt is a simple process. Wells are bored several hundred feet and

the brine pumped out of them into vats. The salt blocks are medium or large size buildings, as the case may be, filled with evaporating vats and bins for the salt. Through these vats steam pipes run, and the heat from them is what does the work. There may be a rare life-preserving and life-giving quality in these salt blocks.

It was remarked by a mill operator that the men in his salt block were very healthy. On being asked as to details, he thought they had been exempt from catarrh and lung diseases. Others were questioned and all gave about the same testimony. C. W. Grant, a Saginaw Valley pioneer and a close observer, was very decided in his expression. He could not remember during all his years of experience a case of catarrh, consumption, pneumonia, or hardly any other disease among his salt workers. He had seen these men many a time leave the blocks, and sit and stand outside in a raw, raking wind, with no bad results. At times, when he had contracted a cold, he had taken a sweat in his block, and come out as good as new.

This was layman testimony: Something more explicit, or rather more professional was wanted. Two of the oldest, and said to be the ablest physicians in Saginaw were visited, and their views were kindly given. One said that during his many years of practice he had not known a case of catarrh or consumption among the salt men. The other one said that he had never known among these men a case of catarrh or lung disease, either chronic or acute. Moreover, many a case of malaria had been cured in the blocks.

The writer of this has never known but two authentic cases of consumption being cured. One of these was a salt cure pure and simple.

The consumptive, who by the way was a physician, pinned his faith to salt. He carried it in a box in his pocket, and many times a day ate a pinch of it. He fully recovered, and after death from another disease, a post-mortem disclosed the fact that the cavities in his lungs were thoroughly healed. The other case was related by an old physican of Chicago, now in government employ, who performed a post-mortem on a sailor, and found sound lungs, which at one time had been badly diseased. Years on the salt water had worked a cure.

These salt blocks are filled with a hot, salty, medicated vapor, and the inmates become thoroughly pickled. The sweat is running from their pores from morning till night and their skin is white and soft as a babe's. Here they live in these hot, vapory places ten hours every day, and are absolutely exempt from the diseases named above—diseases which are the constant dread of the people outside, and which fill our cemeteries.

The *Lumberman* representative now feels that if he had a serious case of catarrh or incipient lung trouble, he would ask permission of some kind-hearted mill man to sit around in his salt block. He would pull off his shirt and shoes and stockings just as the salt workers do, and paddle around in the salt with them. He would pursue this course of treatment believing that if anything on the face of the earth would work a cure this would.

The treatment would be inexpensive. It would be new; and the good Lord knows that something new is needed in these diseases, as the old style treatment means, by an overwhelming majority, a prolongation of the malady, and finally death.

To Cut Short Whooping Cough in Twenty-four Hours.—The *Illustrated Medical Journal* says that Dr. Moncorro treats pertussis with a ten per cent. solution of resorcin, by applying the solution every two hours to the periglotteal region with a throat-brush. The application is made four or five times at each seance. The theory of the treatment is that the disease is due to a micro-organism and affects primarily the larynx. Cultures of the micro-organism have been destroyed by the smallest amount of resorcin.

M. Levy has bequeathed to the French Academy of Medicine the sum of 50,000 francs, the interest of which is to be given every year to the Pasteur Institute, to be applied in the furtherance of researches on diphtheria. The capital sum will be given as a prize to the discoverer of a genuine cure for that disease.

The Influence of the Mind on Hysterical Phenomena.—Dr. Freud stated that he had noticed in conjunction with Dr. Breur, that hysterical manifestations (neuralgia, anesthesia, contracture, paralysis, vomiting, anorexia, hallucinations, etc.), which are commonly believed to arise spontaneously are really due to very definite causes. For example, a gastric affection of transient duration might be followed for several months by nausea and vomiting. A man is present at an operation on his brother for ankylosis of the hip joint; the moment he hears the cracking of the joint he complains of severe pain in his own hip, which lasts for more than a year afterward, etc. The mental shock or the recollection of that shock appears to act, according to Dr. Freud, like a foreign body, the effects of which are felt long after its introduction into the tissues. In support of his assertion he maintains that hysterical manifestations can be completely suppressed by recalling to the patient's mind the event which originally gave rise to them. For this purpose it is usually necessary to have recourse to hypnotic suggestion.

This is the only way in which images of the past may be reproduced with all their original vividness, a fact, which, in the opinion of Drs. Freud and Breuer, depends on the existence (at least in a rudimentary condition) of a double state of consciousness, a sort of "hypnoid state." This theory bears a strong resemblance to that propounded by Dr. Charcot, who admits that the hysterical fit constitutes a rudimentary "second state."

Poisonous Symptoms Caused by Eucalyptus Globulus.—Dr. Benjafield writes from Tasmania to the *Lancet*:

"I have been called in to cases of apparent poisoning by eucalyptus globulus, but all of them soon recovered. E. G.—, aged two years, climbed up to her mother's store of household medicines, and poured about a teaspoonful of pure oil on some sugar and swallowed it. Within half an hour she began to stagger. Then she became violently sick and lost all power over her legs, so that when attempting to stand she dropped down helpless. A sort of intoxicated torper then set in. We could awaken her by shaking her and calling; but she immediately relapsed. The pulse was quick and strong; the pupils were slightly contracted. This lasted for about three hours, when she awoke perfectly right and ate a good meal. Another child drank an unknown quantity out of a bottle and had the above symptoms very marked; also had great difficulty in breathing; but by report brought to me from the Bush, where it occurred, she recovered. From experience here, where we have never seen Asiatic cholera, I should expect it to be a good germicide and stimulant for this disease. It might safely be given in half-drachm doses, which would quickly saturate the system with the drug; or drachm doses in milk might be injected into the bowel."

New Exploratory Method.—Dr. B. W. Richardson has announced a new mode of access to secret symptoms of disorders in the stomach, heart, etc. He has found that when an œsophageal tube is introduced into the stomach and the open end attached to a stethoscope, sounds from the stomach, heart and great vessels can be heard and studied; some novel, others more distinct, or even imperceptible otherwise. He says, by previous auscultation of the heart over the thoracic wall I had failed to detect clearly the two cardiac sounds, owing to the feebleness of the cardiac action, but now both sounds were as distinct as they would have been from a normal heart. By moving the tube gently up and down I could get the second sound separately from the first and *vice versa*. Dr. Richardson hopes, by intra-thoracic auscultation, first, to learn about the condition of the stomach. The healthy organ will give its own peculiar sounds; in cancer or other disease these will be modfied. Pulsating abdominal tumors can also be heard. Second, the heart-sounds can be studied from another point of view acoustically. Third, thoracic aneurisms can be heard, and finally slight strictures of the œsophagus can be recognized. Possibly, pulmonary sounds can be studied also.

Physiology of the Peritonæum.—Mr. Lawson Tait's theory of the function of the peritonæum differs essentially from that given in most text-books. He believes that its importance in the human economy is so great that it should be ranked almost next in order to the brain. In his opinion, the strange and invariable plications of this membrane, the exceeding vascularity of its surface, the presence of innumerable stomata, and the profuse nerve supply derived neither from the motor nor sensory system, all point to some active function, whether it be that of secretion or absorption. All the organs actively engaged in the primary preparation of the systemic nutrients, are not only enclosed in the peritonæum, but all the blood gathered from these great organs is collected by a series of minute venous radicles exposed voluminously and immediately under the peritoneal epithelium to any influences which may arise from it. With regard to the causes of peritonitis, Mr. Tait is equally opposed to the theories commonly held, and forcibly remarks that peritonitis is not a lesion which fits into the germ theory of disease at all. He believes that the influence of the nervous system in the causation of inflammation has been under-estimated, and that in peritonitis nerve disturbance contributes more to the death of the patient than microbic invasion.

Slow Pulse.—According to Dr. D. W. Prentiss (*St. Louis Med. and Surg. Journal*) the causes which produce slow pulse may be classified as follows:

1. Diseases or injuries to the nerve centres, producing either irritation of the pneumogastric or paralysis of the sympathetic (accelerator) nerves of the heart.
2. Diseases or injury of the pneumogastic nerve, increasing its irritability.
3. Disease or injury of the sympathetic nerves of the heart, paralyzing them.
3. Disease of the cardiac ganglia, by which the influence of the pnemogastic nerve preponderates.
5. Disease of the heart muscle (degeneration), whereby it fails to respond to the normal stimulus.
6. The action of poisons, as lead or tobacco, either on nerve endings or centres. The poison generated in salt fish. Also the poison of certain febrile diseases, algid pernicious fever. Another possibility is malaria poisoning.

Specific Gravity of the Urine in Diabetes Mellitus.—All our authorities and our individual experience adopt a high specific gravity as an important indication of the presence of sugar in the urine. A case, however, is adduced by Sir Edward H. Sieveking (*Brit. Med. Jour.*) which appears to show that our urinometers may exhibit a much lower specific gravity than that ordinarily regarded as causing a suspicion of sugar, and that still sugar may be present. The urine in this case was examined by Dr. Luff, the government analyst, who found that its specific gravity was 1010 and "contained a small quantity of sugar; the lowest specific gravity of any urine in which I have detected sugar." He also confirmed the fact of its containing a faint trace of albumen.

Sir Edward remarks: "Although this is undoubtedly an exceptional case, it appears to me to afford a decided warning to us all not to be too much guided by the urinometer alone. The examination of urine is universally regarded as a material help in the diagnosis of disease, but it may be fairly suspected that in many cases we have been too liable to assume that if our urinometers indicated a specific gravity below 1030, we might save ourselves the trouble of applying the tests for sugar."

"Kieselguhr" Filter as a House Filter.—This filter is made from diatomaceous earth, which has had the animal constituents destroyed by heat. This earth is then formed into a hollow cylinder, closed at one end. This cylinder is placed in a metal receptacle and the whole covered with a metal cup, perforated at the centre for the exit of the filtered water. The water to be filtered is admitted by a cock at the side and near the top of the case containing the cylinder. The water is forced by the pressure of the main from the outside to the inside of the filter cylinder and finds exit by the tube in the centre of the cup. Weyl (*Berliner klinische Wochenschrift*, June 6, 1892) has examined bacteriologically the water, before and after it passed through this filter, and comes to the following conclusions: First, that this filter, after rigorous tests, is found to give a filtrate more certainly free from sediment than any other house filter on the market. Second, it is easily cleaned; the cylinder may be washed with a stiff brush, and later treated with concentrated hydrochloric acid. The fresher and cleaner the cylinder the greater amount of water is filtered. The cylinder may be easily sterilized by boiling. He thinks there is no doubt that this filter will intercept the pathogenic bacteria.

The Collodion Cotton Dressing.—Dr. P. Biedert (*Wien Med. Blaetter*, No 33, 1892) calls attention to the fact that colodion adheres more firmly to the skin when it is applied over a very thin layer of cotton. By the application of several layers of cotton and collodion, large areas of integument may be covered. In cases of small wounds, especially those of the hands, this dressing is very useful. It may also be employed to hold small dressings in place. The interposition of splints between the layers of collodion cotton, strengthens the dressing and makes it serviceable for immobilizing the smaller limbs. It may also be used to hold a catheter in position. This is done as follows:

After introduction of the catheter a thread is tied to the end and a few layers of the collodion cotton applied over the thread around the catheter; both ends of the thread are then fastened to the penis in the same manner.

Action of Cactin.—Sultan (*D. Med. Zeitung*) has extracted an active principle, which he terms cactin, from the young flowers of the cereus grandiflora, and from experiments upon animals concludes that, (1) Cactin augments the energy of the cardiac contractions. (2) It heightens arterial tension and greatly increases the height and force of the pulse-wave. (3) It exerts an influence upon the nervous system through a direct action upon the motor centres of the spinal cord, produces reflexes, and increases the general nervous tone. It is efficacious in functional disturbances of the heart, while it is particularly useful in valvular disease, above all in aortic insufficiency, since this occasions a short diastole. For the same reason it is not indicated in mitral stenosis. It can be used for a long period without causing gastric symptoms or cumulative effect.

Lactic Acid for Gout.—Foucart and Beranger (*Semaine Med.*) recommend in gouty cases the administration of lactic acid, 4 grams, diluted with water, every twenty-four hours, for twenty days, after which it should be discontinued for ten days. The severity and frequency of the symptoms are greatly diminished, and a perfect cure may finally result. The treatment has no unfavorable effects on the digestive functions.

Vaseline as a Lubricator.—Novotny Memorabilien warns against the use of vaseline as a lubricator for sounds and other instruments introduced into the bladder, as he has twice found this substance left behind in the bladder, serving as a nidus about which a mass of detritus had collected, and giving opportunity for the deposit of urinary sediments. In one case the quantity thus massed together upon a quantity of vaseline weighed ten grams.

A New Method of Extracting Foreign Bodies From the Ear has been suggested by M. Humbert, in the *Revue Medicale de La Swiss Romand.*—It consists of a rod tipped with turpentine (solid), which melts sufficiently by the natural heat of the part to become attached to any substance with which it is placed in contact, and which then may be withdrawn.

Tendon Reflexes.—Krauss gives (*Buffalo Med. and Surg. Jour.*) the following summary:

Exageration of Tendon Reflexes.

Organic Disease.

Spinal cord.

1. Myelitis.
2. Amyotrophic lateral sclerosis.
3. Paraplegia spastica.
4. Multiple sclerosis.
5. Syringomyelia and hydromyelia.
6. Hematomyelia.
7. Spinal tumors.
8. Pachymeningitis hæmorrhagica interna.
9. Pachymeningitis cervicalis hype trophica.
10. Brown-Sequard's spinal paralysis.
11. Arthritic muscular atrophies.

Brain.

1. Hemiplegia — Cerebral apoplexy. Cerebral embolism, thrombosis. Acute encephalitis.
2. Hematoma.
3. Hydrocephalus.
4. Senile dementia.

Functional Disease.

1. Hysteria.
2. Epilepsy.
3. Neurasthenia.
4. Paramyoclonus.
5. Tetanus.
6. Psychoses.
7. Infectious processes.

Abolition of Tendon Reflexes.

1. Neuritis. — Simple. Toxic. Endemic. Infective.
2. Locomotor ataxia.
3. Poliomyelitis anterior.
4. Spinal muscular atrophies.
5. Hereditary ataxia (Friedreich).
8. Chorea molle.
7. Chronic ergotism.
8. Diabetes mellitus.
9. Traumatism.

Abolition and Exaggeration.

1. Meningitis. — Spinal. Cerebral.
2. Dementia paretica.
3. Idiocy.

The Etiology of Prostatic Hypertrophy G. Frank Lydston, M. D., Chicago. The principal criticism which I would offer upon the hitherto published theories of the etiology of prostatic hypertrophy is that there has been an arbitrary attempt by most authors to assign the disease to one particular cause or co-related set of causes to the exclusion of other influeuces, and with an apparent disregard for the physiology of the organ, This is especially true of the theories of senility, general atheroma, and diathetic conditions.

The prostate, while it partakes of some of the peculiarities of an involuntary muscular structure is, after all, anatomically and functionally a gland of a peculiarly sexual character.

The relation of the prostate to the function of micturition is purely an accidental one, as shown by the perfect performance of this function prior to the period of development of the prostate, and in eunuchs and geldings in whom it is atrophied. The participation of the prostate in the urinary function is not only secondary, but where it does come prominently into play, is a sequence of pathological conditions.

Granted the sexual and glandular functions of the prostate, it is in the direction of the perturbation of this sexual and glandular function that we must look for an explanation of hypertrophy of the organ, or, in short, for all pathological disturbances which are not the direct result either of traumatism or infection.

Hypertrophy of the prostate is in all probability due to overstrain of the organ during the period of its greatest sexual activity. This overstrain produces active congestion or hyperœmia, and glandular proliferation, which, if it persists for a long time, is not followed by restoration to the normal condition, but by permanent hypertrophy. Prolonged and ungratified sexual excitement, with its resultant disturbance of the circulation of the prostate may, equally with sexual excess, produce a disturbance of the nutrition of the gland which late in life will result in prostatic hypertrophy.

The conditions which constitute the point of departure from the normal prostate that determines prostatic hypertrophy at a later period, comes on earlier in life than is usually supposed, a large number of individuals being affected by it.

In the majority of cases prostatic hypertrophy is attributed to senile change, simply because the secondary results of a prostatic enlargement occurring at a relatively early period, do not manifest themselves in most instances until the patient is well along in years. It is conceivable that, although more or less prostatic obstruction may exist before middle age, residual urine may not accumulate in any great quantity until after the bladder walls themselves have begun to lose their elasticity by virtue of the physiological changes incidental to increasing age. Even admitting that residual urine has formed in considerable amount, there may be very little resulting disturbance until such time as germs penetrate the bladder and set up decomposition.

The occurrence of prostatic hypertrophy in advanced life as a consequence of overstrain of the organ at an earlier period, is explicable upon the same grounds as is the development of arthritic disturbance at the sight of a traumatism—*i. e.*, a strain received in early life—in persons beyond middle age.

Senility, gout, rheumatism and general atheroma are in all probability not the exciting causes of prostatic hypertrophy, but are determining factors in so far as they promote irritability of tissue, a tendency to connective tissue proliferation, and a loss of elasticity of tissue.

Prostatic hypertrophy is really an evidence of conservatism on the part of nature in her attempts to resist strain and promote rest of a much abused organ, and begins at the time when such abuse is most pronounced, although its effects may not be manifested until later in life when other influences have had time to come into play. While the prostate is normally a urinary organ, strictly speaking, and while disturbance of micturation is not *per se* causative of prostatic hypertrophy, said disturbance when once it arises as a consequence of prostatic hypertrophy, necessarily re-acts upon the diseased organ and enhances the pathological condition present.

In a perfectly normal old age, it is probable that the prostate should atrophy. That it does not do so more frequently is explained by the prolonged duration of the sexual function in the human species incidental to the developmental effect of over indulgence and other causes of sexual over stimulation.

It may be remarked in passing that neither the human male nor female is on the average in a perfectly healthy state from a sexual standpoint, inasmuch as the sexual function is made subservient to sensual gratification rather than the procreative act—its original object. The sexual life of the lower animal—at least in the wild state—typifies the normal in most instances, while that of the human subject typifies the abnormal, or, if you please, the artificial. There is no question in the minds of logical gynæcologists and neurologists as to the truth of this assertion regarding the female, and I feel free to maintain that it bears with equal force upon the sexual function and organs of the male. That an organ is patient and long suffering under physiological abuse, does not obtain for the individual who abuses it, immunity from future penalties.

It will be found by careful rectal examinations of men

*An extract from the *Med. and Surg. Reporter.*

from the age of twenty upwards, that a prostate which is perfectly normal in size, consistency and sensibility is the exception rather than the rule. This is true of the masturbator and sexual hypochondriac as well as of the individual who has had posterior urethritis, although the latter condition is, it must be confessed, a very frequent explanation. That this aberration of the prostate is followed in the majority of cases by a return to a perfectly normal condition is highly improbable in the face of the fact that the majority of patients so affected lead lives which are so unphysiological from a sexual and dietary standpoint, that the condition of the prostate is more likely to become aggravated than improved. To expect complete resolution in the average patient, who keeps up his sexual abuse, and perhaps over-indulges in the pleasures of the table, would be absurd. The penalty in such cases is, very frequently, in my opinion, hypertrophy of the prostate.

There are certain cases of so-called prostratic hypertrophy of a circumscribed character, which should properly be termed fibro-myomata of the prostate, and in which the etiology is very obscure. The old time homology with the uterus explains nothing in the face of the obscurity of origin of uterine fibro-myomata. Even in this last variety of prostatic tumors, the etiology outlined in the paper and conclusions, may have a practical bearing.

Tonic Reconstituents.—(A. Lutaud, *Medecin ae St. Lazare, Membre Fondateur de la Societe Obsietricale et Gynecologique de Paris, France.* Excerpted from *Journal de Medecine de Paris.*) The fundamental basis of all rational therapeutics must be to restore the tone and reinforce the power of resistance of the tissues. The organism must be placed in a condition, not only to provide for daily needs and to resist vicissitudes of temperature, humidity, etc., but to enable it to resist the attack of the enemies in the form of the pathogenetic microbes, which lie in wait for victims. It is above all necessary to prevent that devitalization of the tissues, which renders them an easy prey to the marauding bacillus. Hence the efforts of therapeutists of all nationalities have been directed to the discovery and perfection of tonic and reconstituent preparations. Among these remedies, and occupying by common consent the first rank, is one, the origin of which it may be interesting to trace.

The drug in question is, of course, coca, which, under the designation of erythroxylon coca, was first introduced into European therapeutics by Mariani in 1863. We have specified *European* therapeutics simply because, as a matter of history, the virtues of this particular plant have been known and appreciated in South America for centuries, and the Spanish invaders promptly became familiar with them on their arrival. * * *

In 1781, at the siege of Paz, which involved a struggle extending over several months between the Peruvians and the Spaniards, the mortality was terrible, and it was noted as a remarkable fact that the only persons to escape were the Indians, who were provided with an ample supply of coca leaves. * * *

Mantegezzi considers coca to belong to the class of "nerve foods," at the same time regulating and re-inforcing the action of the heart. Prof. Gubler, who took up the study of the pharmacology of the coca plant at the same time as Mariani in 1863, is of opinion that coca confers a potential energy on the nervous system, partaking of the nature of a fulminate, but with this difference, that this provision of energy is expended little by little instead of all at once. According to other observers, the anæsthetic properties of the plant, which are well marked on the mucous membrane of the mouth, extend to the stomach, and thus the sensation of hunger is abolished.

Now that more recent researches have placed the physiological and therapeutical properties of the plant on a sound and scientific basis, these theories have become established facts.

Coca acts in two ways: First, by imparting a tonic principle to the nervous system (Gubler), and, secondly, by *anæsthetising* the mucous membrane of the stomach. We are enabled in this way to explain the remarkable properties of erythroxylon coca, not only as a nutritive and reconstituent agent, but also as an anæsthetic of the mucous membranes.

When M. Mariani first brought this drug to the notice of the medical profession, the market was promptly invaded by a host of remedies said to possess reconstituent and revitalizing properties, but these were for the most part more remarkable for their irritating effects on the mucous lining of the stomach than for any therapeutic influence.

When Mariani completed his first series of experiments, now more than twenty-five years since, he particularly insisted on the fact that coca possessed not only the stimulating and dynamic properties of the cinchonas, but that it also acted as a direct sedative in dyspepsia. The success which followed the use of his Vin Mariani in all affections of the stomach of which *pain* was a prominent symptom, has, since, amply confirmed the accuracy of his earlier observations. While other tonics are found to produce constipation and, are moreover, badly borne by dyspeptics, Mariani Wine proved eminently successful in all cases in which the stomach was irritated or inflamed. This naturally led to its being looked upon as a specific in many cases of dyspepsia and in the treatment of the incoercible vomiting of pregnancy.

These results appear simple and logical enough now that we are acquainted with the sedative and analgesic properties of coca, but twenty years ago they were merely the result of clinical observation. This fact has seemed to justify an illusion to the patient research, which had for result to discover the sedative action of coca and which paved the way to the discovery of cocaine, that most valuable and important of alkaloids.

In every case it has now been conclusively shown that Vin Mariani is not a medicated wine of the ordinary kind, having for effect to tickle the palate of the patient and to afford a passing stimulus in virtue of the alcohol it contains. Coca possesses, in a minor degree it is true, but nevertheless does actually possess, the analgesic properties of the alkaloid cocaine. Brought into direct contact with the irritated and inflamed gastric mucosa it exerts its double action as stimulant and sedative. It increases the activity of the mucous and peptic glands; it facilitates the various chemical changes necessary to the assimilation of food and, at the same time, in virtue of its sedative effect, it subjugates the *pain* which is so common a symptom in indigestion.

Coca wine, therefore, is admirably adapted for the use of dyspeptics, as well as of anæmic and debilitated persons.

It is, however, more particularly indicated in that numerous category of sufferers from laryngeal phthisis associated with dysphagia. These unfortunate persons suffer untold pangs in consequence of their inability to perform the indispensable act of deglutition. Vin Mariani lends itself, as no other remedy does, to the relief of these distressing symptoms, for it not only gives a temporary staying power to the organism, but by rendering possible the ingestion of solid food, it permits of a more durable amelioration. This fact has been insisted upon by one of the most distinguished French laryngologists, Dr. Ch. Fauvel.

We would therefore venture to recommend persons in whom deglutition is difficult or impossible, to take one or two tablespoonfuls of coca wine just before attempting the ingestion of food. The same advice may be given to those in whom the act of swallowing is painful, whether this be due to an organic affection of the œsophagus or to a similar lésion in the stomach. By this means the existence of patients afflicted with cancer may be prolonged and rendered comparatively comfortable.

It is obvious, after what has been said, that Vin Mariani is not only the first and most powerful of reconstituent preparations, but that it also possesses special therapeutical properties, which render its use of benefit in all cases of dyspepsia and anæmia and in the various diatheses.

The Treatment of Asiatic Cholera.—(Dr. Frank Abbott, Jr., *Med. Record*): In cases where the stomach rebels against any medication it is useless to lose time trying to treat the disease by the administration of medicaments *per orem*. Another fact that should not be forgotten, whether the case is slight or grave, is the disinfection of the external integuments; all patients should be thoroughly washed in an immersion hot bath and their skin cleansed with slightly acid solutions. They should be put in a warm bed, and stimulants, such as hot coffee or hot tea with brandy, administered. In many instances this treatment will check the progress of the disease, as has been proven in cases in which the coma bacillus has been found in the dejections of patients who have never reached the stage of collapse, or the second stage of the disease. When the diarrhœa is profuse and persistent, and the first signs of collapse appear, hypodermic injections of alkaline solutions should be resorted to without a moment's delay. These not only replace the water lost from the blood, but by increasing the volume of fluid contained in the body help to dilute and eliminate the ptomaines produced by the comma bacilli, which otherwise would be retained in the system. The solution for hypodermic injections, or hypodermoclysis as it is generally known, is prepared by dissolving seven parts of sodium chloride in one thousand parts of sterilized water (sodium chloride ʒ ij., water ℥ xxxij.) with or without the addition, according to the necessity of the case for a stimulant, of ten parts of brandy or six parts of pure alcohol, and heating the whole to 37° C. (98.4° F.) The operation is performed by means of an ordinary bulb or fountain syringe, and a small-calibre aspirating needle inserted, preferably, in the latero-thoracic region. The amount injected each time varies according to the case. In an adult a quart is not an excessive amount, and this may be repeated as often as required until the pulse, which should be the guide to the physician in these cases, becomes strong and full. In most cases the absorption of the injected fluid indicates the prognosis. A quart of fluid is generally absorbed by an adult in about thirty minutes. If the absorption does not take place the probability is that the vitality of the patient is so low that all interference is useless. Hypodermoclysis and enteroclysis must be continued until the temperature of the body and the action of the heart show an improvement in the case. Hot-air baths are most beneficial to maintain the temperature of the body. If the symptoms of asphyxia are persistent, notwithstanding the above treatment, inhalations of oxygen under certain circumstances have been of great benefit in cases which seemed almost hopeless. Cramps, which are the most distressing symptom during the attack in its advanced stages, are relieved by the combined action of the hot-air baths and massage.

Opium and all its derivatives, as well as hydrate of chloral, bromides, etc., should be avoided, as the only result of the use of such therapeutic agents is to depress the action of the heart and the vitality of the patient. From our actual knowledge of the disease, which is only the localization of a pathogenic germ in the intestinal tract, with subsequent absorption of a poison which produces an action very similar to that of muscarine, the treatment is evident, and it will be found that that given above is the best known to science to-day. The contagion having taken place, the germs being in the intestinal tract, the ptomaines having been absorbed into the blood, our effort should be to remove the poison from the blood, and to put a stop to the activity of the germ in the intestinal tract; in other words, wash out the blood, wash out the intestines.

During the third or reactionary stage, which differs according to the severity of the attack, the nutrition of the patient should be the principal aim of the physician; to re-establish the impaired action of the kidneys and build up the system gradually, a careful diet should be given, avoiding everything that requires much effort in the way of digestion, thus protecting the alimentary tract from irritation. Seltzer-water with milk, carbonated beverages, champagne in moderate doses, maltine with cod-liver oil in weak children, maltine with peptones in older persons, will be found beneficial. The latter is the best substitute for a combined meat and cereal diet, and is easily assimilated.

The convalescence after cholera is long and tedious, and fraught with much danger to the patient on account of the lesions left in the intestinal tract. Notwithstanding the apparent good condition of the patients after leaving their beds they are very debilitated, and the least excess or error in diet may give rise to serious complications. Duodenal digestion is always very poor in these cases, and foods which require little digestion in the small intestine should be adhered to for some time, and here maltine preparations have proved exceedingly useful. As to the prophylactic treatment, only brief mention is necessary. Isolation of the patients and thorough disinfection of their clothes and dejections are the best means of avoiding the disease. It should not be overlooked that water for drinking purposes, and all foods, should be recently boiled or cooked before being used, and it is highly important that the physician sees that in his families these precautions are observed. All cases of indigestion should be promptly treated, the system of delicate persons built up as far as possible, and any errors of diet corrected. Delicate children with poor digestion and weak assimilative powers derive great benefit and are rapidly built up by the free use of maltine with cod-liver oil.

The results of the above treatment were practically demonstrated in the last imported epidemic of Asiatic cholera at the quarantine station. In most of the steamers which brought the cholera patients over the death rate on board reached over ninety per cent. of the total number of sick, while at Swinburne Island the percentage of death was reduced to twenty per cent., and it is believed that treatment carried out as above, with careful attention to detail, and begun early enough in the disease, may reduce the mortality still lower.

The Prevention of Disease.—Dr. T. Mitchell Prudden (*June Century*). Recent studies have shown, as most educated people well know to-day, that this whole class of formidable diseases is caused by minute organisms which enter the body from without, and, each after its kind, poison or kill. It is a long and sinister list, with consumption or tuberculosis at the head. In its train follow pneumonia, diptheria, scarlet fever, typhoid fever, cholera, smallpox, measles, typhus fever, yellow fever, malaria, and more of the devilish brood.

Twelve years ago we knew practically nothing of these invisible enemies, the pathogenic germs, which nevertheless carried off prematurely and under untold suffering a large part of the human race. To-day some of them are present at the roll-call in every well-furnished bacterial laboratory; their pedigrees, their lurking-places, and their habits are as distinctly matters of record as are those of larger criminals in statelier prison-houses. To-day we know something of the stories of nearly all them, and of many how they produce their dire effects in the body; we know the conditions under which they thrive; we know how, outside of the body at least, they can be killed. Now and again it has seemed as if the veil were parting, and we could catch glimpses of a time not far off when we shall be able to battle with these intruders, even in the body, when their ravages are already under way.

But as yet the great practical result of this decade of discovery lies not so much in the power which we have acquired to cure, as in the power to prevent, bacterial disease. We have learned that in a large number of bacterial diseases the inciting germs have no breeding-places outside the bodies of those men or animals which are their victims, and that if all materials thrown off from these be at once destroyed by heat, by fire, by chemicals, or in any other way, all danger of transmission is removed.

In regard to such diseases, then, as typhoid fever, cholera, diphtheria (and in large measure the same is true of consumption and pneumonia), our point of view has entirely changed. They are not inevitable accidents, even under the complex and in many ways unfavorable condi-

tions of life in crowded communities. When to-day we hear that this or that useful citizen has fallen by the way, stricken with typhoid fever, or when diptheria claims the light of the household, we know that ignorance or carelessness, be it private or official, is alone to blame. We cannot always, we cannot often, trace the fault, so complex are the conditions of modern life. It may be the milk-dispenser, it may be an inefficient street-cleaner, it may be a polluted water supply, or the filthy folly of trailing skirts along the streets, which has brought the germs to the victim. They are sown by indiscretion, and fostered always by ignorance and neglect. Diptheria claims yearly in this land its hundreds of thousands of child victims, uselessly sacrificed on the altars of public apathy or private indolence. A conservative comparison and estimate shows that in the State of Michigan alone, during the three years 1886-88, at least ten thousand cases of diptheria were probably prevented, and more than 1700 lives saved by intelligent isolation and disinfection.

A National Board of Health.—How It Might be Composed.—(*The Century for June, Editorial.*) Concerning the construction of the National Board proposed there is a difference of opinion only as to details. All authorities agree that it should be composed of trained sanitarians who should be appointed by the President, should have a chief, and should include in their number the surgeon-generals of the marine hospital service, the army, and the navy.

One excellent suggestion, offered by an eminent and experienced sanitarian of New York City, is that the board be made up as follows:

First, a chief appointed by the President, who should be paid a large salary and should reside in Washington; next, the three surgeon-generals of the army, navy and marine hospital service; then, one sanitarian of established reputation from each of the following sections of the country: the yellow-fever district of Louisiana; the quarantine district of the east; the far west of California and the Pacific coast; the Northwest—say Chicago—because of its relationship to Canada; and the middle district of the country—say Kentucky or a neighboring State. Each of these also should receive a good salary. This would make a board of nine members, who would represent the interests of the whole country, and would give all sections the benefit of their combined sanitary knowledge and experience. This board should be given full legislative, judicial and executive powers, such as are exercised by the Board of Health of New York City. It should devise measures, decide upon the method of their execution, and administer them without interference from any quarter. It might constitute as its executive committee the chief and the three surgeon-generals, who should be made the administrative force of the bureau. This would put the duty of executing the rules and regulations of the bureau into the hands of the only officials we have in this country who are especially fitted for the work; that is, officials who are permanent, who have no private interests, who are removed absolutely from all outside influence of any kind, political or other, who are trained in the work of discipline and organization, and who are accustomed to look to no other end than efficient service. The executive committee and the chief could really conduct the department, the other members of the board coming together on summons whenever their presence was necessary.

The plan seems to us well considered, though of course it is possible to improve upon it. The main thing is to get the National Board and to have it begin at the earliest possible moment the work which Dr. Prudden outlines as its sphere of usefulness. Of course the establishment of a National Board must be accompanied by the abolition of all State and local quarantines, but not of the State and local boards of health. No political influence should be permitted to delay one moment the work of such a reform. It goes without saying that the question of the health and well-being of the whole country is of too great importance to allow the selfish greed of politicians or of political organizations to stand in its way. That any set of politicians should oppose such a necessary measure is an illustration of the spoils system which ought to startle the community.

The Justifiable Prevention of Conception.—The physician not infrequently has to warn against conception in cases where a pregnancy would endanger the life or health of the patient. Pelvic contraction, abdominal and uterine tumors, etc., form such an indication. The advice to abstain from coitus is but seldom followed, and the means usually employed to prevent gestation (mechanical) are objectional from a hygenic and ethical point of view. Kleinwächter has endeavored to find a remedy which would have none of the aforementioned drawbacks. He prescribes a cacoa-butter suppository containing ten per cent. of boracic acid, to be introduced high up into the vagina. These suppositories dissolve in about one hour, and the liberated acid destroys the spermatozoa. Bichloride of mercury in 0.001 gramme doses can also be used, but in that case a vaginal douche has to follow the sexual act. The solvency of the suppository is heightened by adding one grain of oleum olivæ. The author considers this a safe and sure remedy to prevent conception. Therapeutic effects may be combined by the adding of various drugs—for instance, tannin in cases of uterine catarrh.—*Medical Age.*

Dermatol in Diarrhœa.—Coloranti recommends this drug for the colloquative diarrhœa of phthisis, and for diarrhœa of typhoid fever. He gives it in doses of 5 to 10 grains, up to 30—90 grains per day, alone, with opium, or in mucilage. In that of acute enterocolitis, or malaria, and of convalescence it also proved of value. The reports are so favorable as to warrant an extended trial of this promising drug.

RADAM'S MICROBE KILLER.—Dr. R. G. Eccles again discusses this preparation at great length in the July issue of the *Druggists' Circular*, stating results of analysis made by himself and others in 1889, showing that it contained sulphuric and muriatic acids, with sometimes sulphurous acid. Referring to the trials of the cross suits between him and Radam for libel he says: "So far, therefore, were they from denying the truth of my analysis, that they tacitly adopted it as true, and undertook to prove to the juries that it was a good thing. So remarkable a reversal of attitude on the part of Mr. Radam and his companies staggered us, as it must stagger the reader who remembers any of the many forcible denials made by them in the past. They have all along in their pamphlets and newspaper advertisements strenuously maintained the ground that the analysis was false, and therefore libelous; that it was not even a good piece of guess work. The whole animus of their attack, indeed, has rested on this very denial.

Dr. Eccles has invented a simpler process for making Radam's Microbe Killer which at the same time, does not conflict in any way with Radam's patent. This formula is:

Sulphurous acid, U S P	4 ozs.
Commercial sulphuric acid	4 drs.
Muriatic acid	2 to 10 drops.
Red wine	1 oz.
Water enough to make	1 gal.

This preparation, or better still, the sulphurous acid and water alone, will act as a preservative of fruit, meat, etc.

At the trial, Mr. Goodman, Radam's New York manager, "reluctantly and under oath," calculated the cost of the Microbe Killer at less than two cents per gallon, although they retail it at three dollars per gallon. The net cost of the preparation made by the above approved formula is from five to six cents for about four gallons when made in quantities.

The New York Medical Times.

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NOW AND THEN.

IT is interesting to look back scarcely forty years, when the most brilliant surgeons in our own profession trembled at the thought of opening the abdomen. The operation of McDowell, for ovariotomy, or the methods of Sims for vesico-vaginal fistula, had not then taken their place among the most useful and important triumphs of surgery. Sims had started his hospital, the first appropriation for which, by the Common Council of this city, was made upon a report of a committee of that body, written by ourselves, and was moving with the energy and persistence of an unconquerable will among the profession for the establishment of a woman's hospital. "This is all very well," said Dr. Valentine Mott, then recognized as the most original and accomplished surgeon in the world, "but where are you going to get patients to fill your hospital? There are not enough gynæcological operations required to fill an ordinary sized hospital." Glorying in his own great achievements, so great that Neileton said he had rather have the glory of performing one of the original operations of the American surgeon than to have won the proudest victory of Napoleon, and Sir Astley Cooper, as he warmly pressed his hand, said, "Dr. Mott, you are the only man in the world I envy," as he went out from Athens to the tomb of Esculapeus and tied the carotid artery of a cock, and then sacrificed the bird on the tomb he did not dream that he had scarcely entered the vestibule of the great temple of surgery, and that in less than a short half century the merest tyro in surgery would walk with unfaltering steps where he did not dare to tread.

The Woman's Hospital was at length completed, more through the enthusiasm and personal magnetism of Dr. Sims, acting upon the public mind, than any support received from the profession. Among the earlier cases was one of fibroid tumor in the abdomen, which Dr. Sims proposed removing. Dr. A. H. Stevens, a cotemporary of Dr. Mott, and one of the leading surgeons of the New York Hospital, then located on Broadway, at the head of Pearl St., strongly opposed the operation, not because he did not think it might not be successful in Dr. Sims' hands, but he said the example would be bad, for every doctor in the land would be induced to cut open the belly of every young woman to see if she had a fibroid tumor. The old doctor's prophesy was not quite correct, for but few unnecessary operations have been performed for the removal of tumors, but almost every young surgeon's fingers have itched to get hold of an ovary, a Fallopian tube or a womb, the majority of which no more needed removal than did the testicles of the operator. Thank heaven, that craze is giving way to a more sensible and conservative spirit! There was one advantage in the enormous hoop skirts worn at that time, so large as to conceal the evidence of pretty large tumors, and even pregnancy in its latest stages, when the form is usually the most rotund. These hoop skirts were a great source of annoyance to old Dr. John W. Frances, one of the most kindly and genial men in the profession, whose house was a great center of literary, scientific, artistic and social life. The great hoop skirts had so far concealed the form of one of the jovial doctor's patients that he did not dream she was pregnant until one day on coming home he found he had been sent for in great haste. Rushing with all speed to the house, he found another physician had delivered the child and pocketed the fee. This was too much, and on his way home he rushed into the office of Dr. Emmet, then a young man just out of the hospital, and startled the pious young doctor by exclaiming with great force, "Damn those hoop skirts! Young man, there was a time when I went to church that I could look around me and form some idea of what my income might be during the year; but now, since the invention of these damned hoop skirts I can no longer judge of the condition of the women. I am away from home when wanted, and some young whippersnapper

gets the case." The doctor of the present day can congratulate himself that in the improved style of dress there is no such impediment to a correct diagnosis. We say an improved style of dress, but can the long, cumbersome skirts ever be improved so as to be comfortable? If our female physicians would formulate a suitable dress for their sex, they would be doing a greater work than was ever accomplished by physician or surgeon.

A MOUNTAIN PARADISE.

FROM an editorial in the *Southern California Practitioner* we learn that the unequalled advantages which already distinguish that section as a sanitary and pleasure resort are about to receive a new and wonderful addition. There are as picturesque canons and mountains in the Sierra Madre Range as anywhere in the world; their only drawback—inaccessibility—will shortly, we are assured, be a thing of the past. "That part of the electric cable road which ends at the Echo Mountain House, elevation 3,500 feet, is practically completed, and will soon be in operation. This will bring the resort less than an hour's ride from the city, (Los Angeles). Here below the snow-line and above the fogs is a most delightful situation, both from an esthetic and hygienic standpoint. Other hotels are contemplated upon the higher branches of the railway. A grand hotel amongst the giant trees—the California live oak, manzanita, madrone, mahogany, fir, pine, spruce and cedar—with the balsamic and healthy odors on Mount Lowe, at the same elevation as Colorado Spring or Mount Washington; and another on Observatory Peak, which compares in elevation with the Iron Springs Hotel at Manitou—furnishes any elevation desired; and that too, where butterflies, bees and humming birds, with their necessary complement of blossoms and sunshine, are found every month in the year. While, but a few hundred feet away, on the North side of Observatory Peak, snow-balling, sleighing, tobogganing and skating can be indulged in to the heart's content.

"Switzerland and Italy side by side, a phenomena found nowhere else in the world. The sameness and monotony of the weather here complained of by some, who are temporarily absent from the blizzards, tornados, thunderstorms, freshets, drouth, torrid waves, cold snaps and other metereological contortions peculiar to the wrong side of the Rockies, can soon be varied by a choice selection from marine to mountain climate, with the advantage of reaching either extreme by an hour and a half ride. It is difficult for a Californian to keep within bounds when speaking of the never-ending source of pleasure, 'the glorious climate,' for like old wine it improves with age. Strange as it may seem, the Pasadena Mountain Railway is developing the climate, bringing in all its varieties at the doors. The vast forests of eucalypti, orange, lemon, walnut, olives, peach and pear trees are developing the climate in the truest sense. So that in the place of hot, dusty, treeless plains, sere and brown two-thirds of the year, and very like a parched desert, the large stretches of evergreen groves, the well-watered vineyards, the many villages have transformed not the face of the country alone but cooled the very breeze, and form a visit worthy of so great an undertaking to make it common property of the American tourist."

THE new Montifiore Hospital, adjacent to the Home of Chronic Invalids, is now in process of erection. The institution, although erected by the Hebrews, will be unsectarian, as is the Invalid Home, and will cost when completed $235,000.

AN autograph of Hahnemann was recently sold in this city at an auction for $20. The letter was written in Paris in 1841, when Hahnemann was 85 years old, the subject being the inscription of a tablet to be placed on the house where he was born in Meissen, 1755.

THE summer corps of physicians to the number of fifty sent out by the Board of Health to visit the sick in the tenement districts commenced their work July 5. They are provided with tickets for the excursions of the St. John's Guild, Juvenile Guardian Society and other organizations.

THE American Medical Association is still at work upon the old subject, a Code of Ethics for a profession whose individual members are not considered gentlemanly enough by confrères to furnish their own code, but are required to be placed in the leading strings of an association to keep them within the bounds of decency and common honesty. The committee on the Code of Ethics, presented at the last meeting of the Association a majority and minority report, neither of which was acted upon. The majority report in spirit recommends the individual conscience as a sufficient code, while the minority have not

the same confidence in their brethren and insist that the code with its restrictions and fraternal advice stand as it is. The *Medical Record* in speaking editorially upon the subject says what we most heartily endorse, "We doubt if any good will come from continuing to discuss these questions. We prefer to teach the gospel of virtuousness and let the details be determined by the individual conscience. The individual conscience, we may add, is setting strongly towards consulting with all qualified practitioners who enjoy a reputation for honesty among their fellow men."

And to this conclusion we presume all sensible men will come at no distant day.

BACTERIOLOGISTS have been for some time familiar with the fact that the common bacilli produce nitric acid and nitrite, but instead of seeking in these secretions the cause of the destructiveness of the microbes, they have directed their attention chiefly to the poisonous albuminous substances they have discovered in "cholera culture," but which prove to be the contents of the cells of the dead bacilli, and therefore perfectly harmless so far as the genesis of the disease is concerned. It is the active product of their vital functions, and not any lifeless residuum of decomposition and decay that works the mischief. By a series of experiments on rabbits, Profs. Esmerich and Tabor have shown in a Munich journal of the 10th of June, that the symptoms of cholera and of poisoning by nitrite are perfectly identical in their action on the blood, and on every part of the organism. These statements of the learned professors are undoubtedly correct, and in looking to the ptomaines for the deadly poison, there is opened a very important avenue for the therapeutic study of the disease.

AFTER the death of Gov. Tilden, Dr. Charles E. Simmons sued the estate for his bill of $143,350 for eight years' medical service. When we consider the fact that a man standing so high in his profession as Dr. Simmons, was compelled, to meet the demands of Gov. Tilden, to give up almost entirely his general practice, the sum of fifty dollars a day, which was the amount charged, seems a very small compensation for the services rendered, which no doubt prolonged the life of the illustrious patient for years. After a long contest Dr. Simmons compromised what every physician would consider a just and moderate claim for $40,000.

BEES AND RHEUMATISM.—The *Medical Record* says: "some two years ago an Austrian physician advanced the remarkable theory that persons who have been stung by bees enjoy an immunity from the effects of bee stings for varying periods and that moreover, the virus of the bee sting is an infallible remedy for acute rheumatism. The latter part of the theory, according to the *Mediterranean Naturalist*, has received unquestionable confirmation from a custom of the country people of Malta. Bees are plenty in the island, and bee-stings are in such repute as a cure for rheumatism that resort to this primitive method of inoculation has been a common practice in some cases for generations, the result being most satisfactory." The pathogenesis of a remedy which seems so new to our friend of the *Record* as to call for an editorial note can be found in somewhat minute detail under the head of *Apis Melifica* in any good work on Homœopathic materia medica. Notwithstanding the remedy is not indicated as a specific in all forms of acute rheumatism a very distinct picture is given of the inflammatory action for which it is indicated, not only in acute rheumatism but in erysipelas and other forms of inflammation; a picture which has been verified over and over again and the minute study of which has pointed out the precise condition of disease in which it is indicated. Of course the facts brought out by hundreds of trials are free to all, but it is not the fault of the remedy if prescribed in this hap-hazard fashion, of being a specific for acute rheumatism if it often fails.

IN the July issue of the TIMES we stated that "fifty per cent of the applicants for license at the hands of the Homœopathic Examiners (State Board), were rejected, numbering three times as many as were rejected under the old school examination." This statement we had seen repeated in several journals, but wishing of course to be absolutely correct, we wrote to the Regents of the State University for the precise figures; not receiving them in time we copied the statistics as they appeared in an editorial of the *Medical Century* of July 2d, which we find by a statement received from the Regents a few days later to be incorrect. "From August 1st, 1891, to June 1st, 1893, there were examined by the State Board 230 (old school) of which 17 were rejected. Twenty-three were examined by the Homœopathic Board of which four were rejected." Thus it will be seen that a little more than two and a half of the Ho-

mœopaths to one of the old school, instead of three to one as we stated, were rejected, the proportion standing, of the Homœopaths one in 5 75-100; of the old school one in 13 59-100. We make this statement not because the correction alters in the least the force of our argument against the action of the State Society at its special meeting in Rochester on the deficient training in any medical college shown by its graduates in their examination for license, but to present the precise facts as they stand on the records of the State University for present and future reference.

From several emphatic expressions from prominent laymen and men eminent in our profession we are convinced that in the estimation of the thinking public, including the majority of the phycians of all schools, nothing could have been more unwise than the action of the State Society at its special meeting. The advances of science are so rapid in our profession and the spirit of competition so great, that every intelligent student will insist upon the best clinical and general instruction he can obtain and will inquire carefully into the resources of colleges before making his selection.

TO read and study understandingly, is to a very great extent a matter of education. At first the process is slow; but if the thought of the writer is clearly obtained and digested, like the skilled musician's or the fingers of the mechanic going over and over the same line of work, the mind absorbs in the rapidity of its action the ideas of the writer and is able to take in the meaning of a page almost at a glance and store it away in the meshes of the memory for future reference and use. How much of all we read to-day in almost every department of science as fact thoroughly demonstrated, ceases to be fact to-morrow, and yet in another decade may be taken from the tomb and arrayed in a new dress and proclaimed to the world as a startling discovery and as the birth of a new offspring! As all forms of vegetable and animal life are simply the reproduction of old forms, changed somewhat by a re-arrangement of molecules, so all thought and every new discovery may contain some atom of old thought, gathered and changed to a more living vitality by the manipulation of the ever acting mind.

THE *Boston Medical Journal* takes the same view of the new medical law of Pennsylvania which we advanced in reference to a similar law which was passed in this State and is now in force, that it is a "bill to perpetuate medical sects," and very justly says that all who enter upon the practice of medicine in that State must do so as Allopathic, Homœopathic or Eclectic. In the courts and in the public every physician will be recognized by the sectarian name under which he received his license to practice medicine." The *Journal* entirely concurs with our position that the medical schools should be non-sectarian; and while one may give more prominence to certain methods than others, all should vie with each other in the wide range of scientific thought, taught in lectures and applied in clinical teaching.

THE chemists of the Board of Health make a daily analysis of the Croton water and post it in the laboratory. The Croton water in its present condition is much better than is furnished to most European cities. There is no danger that the water in its present condition can breed any disease in the nature of cholera or typhoid fever. Most of the danger from intestinal troubles, arises from unripe and partially decayed fruit, tainted fish and meats, and the health inpectors are using all possible effort to protect the poor from these poisons. The present summer shows a less death rate than in many previous summers. Contrary to the predictions of many, the water in Chicago this summer is even purer than the Croton, and the diseases which it was predicted would ravage the city during the summer months have not yet put in an appearance.

WE suggest to the publishers of the *Medical Record* to place among its art publications for physicians' offices the following extracts from the pages of its journal, to be printed in colors and neatly framed.

"If physicians only knew how much more they could gain by being tolerant rather than critical, courteous and friendly rather than distrustful, they would make some mighty efforts towards becoming always and everywhere gentlemen."

TESLA, THE HUNGARIAN ELECTRICIAN.—One of the most notable exhibitions on record occurred at the late meeting of the Philosophical Society in the Franklin Institute, Philadelphia. Nikola Tesla apparently made good his claim that he has discovered the means of controling the electric force so that it shall serve man without injuring him. Among other exhibitions of his power, he permitted a current of 200,000 volts to pass through his body and il-

luminate a bulb containing sulphate of calcicum, which he held in his hand. The bulb was made to glow with a light so intense as to fill the room with a brightness and to disclose the great electrician holding it aloft unharmed and smiling, bowing in acknowledgment of the wild applause of the audience.

SYMPHYSEOTOMY, performed by obstetricians more than half a century ago, but long since fallen into disuse because of the danger of the operation and the feeling that the pelvic space was not materially increased in the right direction, has recently been revived with marked indications of success. As now performed, the mortality rate amounts to almost nothing; no disability is entailed and there is no injury to the parts immemediately adjacent to the pubic symphasis. Dr. Grandin, the accomplished obstetric-surgeon of the New York Maternity and the New York Infant Asylum, who has performed the operation several times, says the operation is indicated under certain conditions as a substitute for the Cesarian section; as a substitute for version in the justo-minor pelvis with conjugator vera of 3 1-4 inches down to 3 3-4 inches, the child being of average size; and in flattened pelvis with a conjugate below 3 1-2 inches, under the same proviso as it regards the child; in impacted scipito-posterio positions, as a substitute for protracted attempts at extraction by forceps and in mento posterior impacted positions. Dr. Grandin gives the details of the operation performed by him with entire success, the child being born alive and the mother making an excellent recovery, and says in his comments: "This operation relieves us of that most unpleasant duty—the sacrificing of the living child, and without imperiling the mother to so great a degree as the Cesarian section, and it also enables us to lessen greatly the number of epileptics and idiots whose condition may be fairly traced to the pressure on the fetal brain called for by the difficult forceps extraction." The operation is not a difficult one, but of course should be carefully studied on the cadaver until all its details are fully mastered.

The year of greatest growth in boys is the seventeenth, in girls the fourteenth. While girls reach their height in their fifteenth year, they acquire full weight at the age of twenty. Boys are stronger than girls from birth to the eleventh year; then girls become physically superior to the seventeenth year, when the tables are again turned and remain so. From November to April children grow very little and gain no weight; from April to July they gain in height, but lose in weight, and from July to November they increase greatly in weight, but not in height.

BIBLIOGRAPHICAL.

RECENT DEVELOPMENTS IN MASSAGE. By Douglas Graham, M.D. The Physician's Leisure Library Series.

Dr. Graham gives a very excellent resumé of massage in the treatment of various diseases, quoting largely from leading writers on both continents, with illustrative cases. The book is full of excellent suggestions.

A MANUAL OF DISEASES OF THE EAR. By George P. Field, M.R.C.S., Aural Surgeon and Lecturer on Aural Surgery, St. Mary's Hospital Medical School, London. In one octavo volume of 391 pages, with 73 engravings and 21 colored plates. Cloth, $3.75. Philadelphia: Lea Brothers & Co., 1893.

Dr. Field's work will be found of interest not only to the specialist, but of special value to the general practitioner, who will find the aural troubles almost daily met in active practice clearly described and so successfully treated that the physician of ordinary skill will have but little trouble in making a diagnosis and following out an intelligent line of treatment. The work has already passed to its fourth edition.

DR. EDWARD MARTIN, clinical professor of genito-urinary surgery, has given in the Physician's Leisure Library, G. S. Davis, publisher, Detroit, a very clear resumé of the cause, diagnosis and treatment of sexual weakness and impotence, both male and female.

OBITUARY.

DR. EGBERT GUERNSEY, JR., son of Dr. Egbert Guernsey, the well-known physician, died yesterday morning at Fishkill-on-the-Hudson, his father's country home, from a hæmorrhage of the lungs. Dr. Guernsey had been ill for some time. He was born in this city thirty-two years ago, and was a member of the Church of the Heavenly Rest. The body will be brought to this city to-day and the funeral will take place at the home of Dr. Guernsey, No. 528 Fifth Ave., to-morrow at 4 p. m. The Rev. Arthur Judge, associate rector of the Church of the Heavenly Rest, will read the burial service, and the burial will be in the family plot in Greenwood Cemetery.—*From the Tribune, July 25th, 1893.*

The above clipping for the information of Dr. Guernsey's numerous friends, will carry with it a pang of sorrow and elicit, we are sure, a full measure of sympathy with this bereaved family. There is a double sadness in this case, first, that a bright and what might have been a brilliant career has been cut off, and second, that a fond and loving father's hopes have thus been blighted. To those who know the tender, loving heart of Dr. Guernsey it is not necessary to speak, and to those who do not we will only say that twenty years of close association would seem to warrant the writer in assuming a knowledge of what he asserts, and it is that he has never met a more congenial, loving soul, devoted to his family and friends, with a sweetness which cannot be surpassed. The loss of his only boy is a terrible blow, notwithstanding the fact that his illness has extended over many years. May peace go with him. To his devoted father and mother we can only offer our sincere condolence. A. K. H.

The Assoc. Act. Ass't Surgeons, U. S. Army, held a meeting in Boston, May 25th, and the outlook of the Society for the future is said to be bright. Dr. W. Thornton Parker, of Groveland, Mass., is Recorder, to whom all communications should be addressed.

CORRESPONDENCE.

NOW AND THEN. 1875—1893.

Editors of the MEDICAL TIMES:

The remarks upon my Open Letter to the dean of the Homœopathic College of the University of Michigan, as found in your issue for July, lead me to ask space for a few words that, perhaps, my years of service entitle me to utter.

I find as I draw nearer to the "dead line"—to revert to army days—that I grow more and more desirous that men shall find that—barring human infirmities—I "fought a good fight, and kept the faith." I know what I have tried to do; others must judge what I have done. I am afraid that I see better by the light of the setting sun than I did in the broad glare of noonday, when the blood was hotter and the pulse hardly to be counted. I have learned in contrition that I thought I was right when, really, I was wrong; and I have also been privileged to find that I was right when men thought I was wrong. I cry quits with all; I have given and I have taken, and, somehow, in the cool of the evening it does seem as if all was for the best.

As I have never been a "policy" man, I am chiefly concerned in this question, "Have you been consistent?" And it is this consideration that leads me to call attention to a single passage in your editorial remarks. You say:

"We are much pleased that our old friend, Dr. Jones, has reached the conclusion that it is no longer necessary to separate the teaching of medicine, especially in the University of Michigan."

I know that I am "thin-skinned"—I have been "skinned" often enough to learn that—nevertheless, I am afraid that some who are not "old friends of Dr. Jones" may misapprehend your statement, and in order to carry out the ethical injunction of the immortal Sairy Gamp, [O write it here in letters fair—"Drink fair, Betsy, wotever you do!"—] let me *return* upon myself, as that prince of critics, Matthew Arnold, puts it.

Amongst some "things of the Long Ago" I recently found six copies of the first lecture ever delivered in the Homœopathic College of the University of Michigan. To-day, those eighteen year old utterances stand me in good stead, and I actively realize the "true inwardness" of Artemas Ward's apothegm: "Virtoo is its own A. Ward."

That lecture cost me much anxiety, and, as it was written in dear old New Jersey, its festive mosquitoes added immensely thereto; but despite the anxiety *plus* the Jersey "skeeters," that man of men, CARROLL DUNHAM, endorsed it. I send you, Messieurs Editors, a time worn copy, and if I "doctor" its evidence, "call me down."

After a preliminary drink [of WATER] the speaker coughed, wiped his mouth, and began:

"GENTLEMEN:—[I was so excited that I did not remember that there were two ladies in the class.] It has seemed fitting that upon this occasion we should take a survey of that domain of science upon which you are about to enter. In accordance with the policy of the day, you are matriculated as students of Homœopathic Medicine, and it is because of this distinctive title that I shall now present for your consideration some thoughts upon *Homœopathy; its Nature, Purpose and Place.*"

Later, the speaker observed:

"You will notice that in defining the nature of Homœopathy I availed myself of its practical features to the exclusion of all that is purely speculative. When Hahnemann deals with phenomena which are by experiment accessible to you and to me, I can reject his testimony only when it conflicts with the results of my own experiments carried out as he directs. So far, then, as Hahnemann states phenomenal facts, I accept him; but when he attempts to *explain* phenomenal facts, there is no canon in philosophy or science to compel my assent. Hence it is that I consider the essential nature of Homœopathy to pertain to the Art as Practice rather than to the Science as Theory Hence it is that I say, in the very words which Hufeland used nearly fifty years ago: 'Homœopathy is worthy of consideration and is not to be rejected, but to be made use of as a *peculiar* method of treatment, subsidiary to the higher principles of rational medicine.'"

The speaker continued: "But these words of the Nestor of German Medicine do not outline the whole purpose of Homœopathy. As a 'peculiar method of treatment' it would be fulfilling only half of its function, and Hufeland, in the same essay, has stated the other and larger half. 'The peculiar and most important problem [he meant function] for Homœopathy is, *to search for and to find new specific medicines.*'"

Having dwelt upon the nature and purpose of Homœopathy, it remained to define its "place," if, haply, it had one. On this point, however, the speaker had no darkening doubt.

"Evidently, there is a place for something, and that something in a *science of Therapeutics.* Is Homœopathy this? It is this, and *this only.*

I know that many of my best and dearest professional friends will dissent from this limitation of the *place* of Homœopathy; but the tree is known by its fruits, and what fruit has Homœopathy brought into the store-house of Medicine? Well, as a Homœopath, I am ready to relinquish every one of Hahnemann's hypotheses concerning disease—they are no worse than others; they are relittle better that you may have them for the asking—but in his *Materia Medica and Therapeutics* he has met the 'unsatisfied desire' of two thousand years and given it the fullness of 'something fixed.'"

Now kindly grant me your patience until I cite the closing paragraphs of my declaration of principles in 1875.

"The temple of Hufeland's rational medicine is very old; there are chinks in its venerable walls, and holes in its hoary roof, and these let in not only wind and rain but also light. One bright beam now illuminates the cobwebs; it it is Haller's great truth that the 'action' of a drug must be determined by its effects upon the healthy organism. When this is followed by those other truths, the 'totality of the symptoms.' that is, a deranged and strictly individual organism to be treated—not a scholastic conception labeled with a nosologist's ticket—and *similia similibus curentur* to determine the remedy, then, and then only, will Rational Medicine wear the crown of rational therapeutics.

"But," say you, "where is the PLACE of Homœopathy?" Its place now is in keeping its golden lamp trimmed and burning; its place then will meetly be in the sweet consciousness of simple duty truly done.

"In that day I would not ask that the NAME for which we are now despised and rejected should be *perpetuated*; but for the sake of all that is just I should hope all physicians would say: "In the matter of Materia Medica, we must all acknowledge that among them of woman born there hath not arisen a greater than SAMUEL HAHNEMANN."

This introductory lecture was first published in the *American Homœopathic Observer*, and if there was one single dissenting voice from friend or foe, I can truthfully say that I did not hear it. If I had it might have disturbed me then; to-day I stand where the inverted thumb has no terror for me. I know what my convictions are; I know that I am sincere; time will try the one and eternity the other.

That Homœopathy will continue to exist as a "school," I do not believe; that Hahnemann's teachings concerning Materia Medica and Therapeutics will find their PLACE in the temple founded by Hippocrates, I most firmly believe; and I care not how Societies may vote *pro* or *con.* I have never yet seen the devil score a single success; I have known him to feed his followers with apples of Sodom—for which diet crude sulphur, *quantum sufficit*, is the only treatment.

Ann Arbor, 4th of July. S. A. JONES.

THE ANN ARBOR IMBROGLIO.

To the Editors of the NEW YORK MEDICAL TIMES:

"The Ann Arbor imbroglio" still awaits a solution. At a special meeting of the Michigan State Homœopathic Society, Prof. Obetz's plan for amalgamation was unanimously denounced as "wildly chimerical," destructive of the interests of Homœopathy, and deserving of severest condemnation; and himself accused of duplicity, disloyalty, misrepresentation and conspiracy. It was also resolved to press these charges before the Board of Regents of the University, and demand the Professor's removal.

To a cool-headed observer it would seem as though any "wildly chimerical" scheme must be fore-doomed to failure, and would best be dealt with by leaving it severely alone. The epithet, however, was probably applied at random, under the influence of excited feelings, since a subsequent editorial in the *Medical Century*, headed "Michigan's Emergency," assures us that "this danger" (of losing the medical school as a distinctive institution) "is *not* imaginary, but real." Dr. Obetz protested against the finding of the Society, and tendered his resignation, but it is said that he will not retire from the College, and expects that his plan of union will "carry with the Regency of the University sooner or later. It is the opinion of many members of the profession of the State that his individual hold of the Regents is so great that he will, perhaps, retain his place, and that there is a possibility of his being able to win in the fight before them." "The situation," concludes first Vice-President Fisher, "is unfortunate," but he bases his hopes upon the "shibboleth" that truth is mighty and will prevail. Then why all this wrath and apprehension? Even if Dr. Obetz be really a Judas—unaccountably bent upon betraying his trust for the bribe of an anatomical chair, although already a dean and professor of surgery—even should the threatened union be consummated, and the "campus" no longer resound to the tread of hostile medical recruits—would the interests of science, so far as they are represented by Homœopathy, thereby suffer in the end? No disinterested and liberal-minded physician can think so for a moment. "Organized Homœopathy" might indeed be shaken to its foundations, but its animating principle—that therapeutic idea which, under whatever names, is recognized to-day throughout the medical world—would still survive, persuasive and powerful as ever.

Argument appears to have very little place, so far, in the journalistic discussion of this matter. Dr. Obetz's reasons for the course he is pursuing, and his answer to the charges brought against him—as given in a paper which he "occupied more than an hour in reading" before the State Society—are not even outlined in the *Century*, and are only met by a torrent of hard names and the imputation of the basest motives. This does not strike me as a fair or becoming method of spreading the case before the public. But the defendant and his friends will no doubt have their innings before long, and then the true inwardness of the situation, now, perhaps, kept hidden behind an inky cloud of personalities, may be brought plainly into view. The general question will then inevitably come up for settlement: *Are sectarian medical colleges really a necessity of our times?* I have just been reading, in the *Journal of the American Medical Association*, a very pleasantly-written paper by Dr. John B. Roberts, entitled "Points of Similarity Between Us and Homœopathic Physicians," in which occurs the following: "The great body of Homœopathic practitioners use any drug, administered in any way that seems to them likely to be beneficial. They are, however, called Homœopaths, because they have a belief in the partial value of a law of similars, and because non-sectarian physicians usually decline medical association with them. All of these physicians ought to be accepted by us as eligible for professional association and consultation, since they are willing to use any and all methods, and are bound by no exclusive dogma or law. Their preference for remedies selected according to what they consider a good rule in many cases does not impeach their general intelligence or their value to the community any more than the differing opinions of many in our own ranks on other medical topics."

Now, will any "loyal" champion venture to come forward and declare the above statements false, or the opinion founded upon them unwarranted? If none can do so—if there is really no difference between the so-called schools which ought to keep their respective members apart as *practitioners*—can it be seriously maintained that these should any longer be separated as *students?* A straightforward, logical reply is very much desired, but by no means expected. GEO. L. FREEMAN.

DR. FREEMAN'S REJOINDER.

DR. JAMES A. CARMICHAEL.

Dear Sir:—A celebrated wit once said of the brilliant and versatile Lord Chancellor Brougham, that "his forte was science, and his foible was *omni* science," and there is something in the tone and spirit of your "Reply to a Correction," that recalls the epigram. The contemptuous self-confidence with which you brush aside the classical authority of an Anthon, while insisting upon an interpretation supported only by your own—and this after characterizing *my* deliverance as "ex cathedra"—is almost paralyzing. All I can now do—and all, as I think, that is needed—in the way of rejoinder, is to quote from Smart's Literal Translation of the passage in dispute, with the *entire* context, and then let each of our readers decide for himself—not whether your rendition of the poet's thought is *nobler* than mine (which has nothing to do with the point at issue), but whether it is more probably *correct*.

"We are a mere number and born to consume the fruits of the earth; like Penelope's suitors, useless drones. * * * Robbers rise by night, that they may cut men's throats; and will you not awake to save yourselves? But if you will not when you are in health, you will be forced to take exercise when you are in a dropsy; and unless you call for a book with a light, unless you brace your mind with study and honest employments, you will be kept awake and tormented with envy or with love ('mental improvement' *was* certainly in the poet's mind here). For why do you hasten to remove things that hurt your eyes, but if anything gnaws your mind, defer the time of curing it from year to year? He has half the deed done, who has made a beginning. Boldly undertake the study of true wisdom. Begin it forthwith. He who postpones the hour of living well, like the hind (in the fable), waits till (all the water in) the river be run off: whereas it flows, and will flow, ever rolling on."

Before taking leave of a subject which, I am aware, has already withdrawn too much of your attention from those more important themes you are specially—and eminently—qualified to handle—I must add that you entirely misapprehend my position with regard to Horace's religious character and opinions. In saying that "death to him was the end of all enjoyment," I by no means intended to imply that he looked forward to *annihilation*. Some sort of a future existence he certainly believed in, but as certainly he connected with it no ideas of happiness or advancement. In proof of this, I need only refer you to the beautiful and tender, but inexpressibly mournful, "eheu, fugaces, posthume, posthume." "So you see my dear doctor," that the "waste of intellectual ammunition," in this warfare, has not been all on one side.

Your objection to the poet's being styled a heathen, reminds me irresistibly of Bob Sawyer's irate landlady, in "Pickwick:" "Beg your parding, sir, but who did you call a woman?" And Mr. Sawyer's explanation, that he "didn't use the word in any invidious sense," must be mine also. The dictionary defines "heathen," as first, "one who does not worship the God of the Jews or Christians;" second, "a pagan;" *lastly*, "a rude, barbarious, irreligious person." GEO. L. FREEMAN.

AN ANSWER TO DR. FREEMAN'S REJOINDER.

DR. GEORGE L. FREEMAN,

Dear Sir—Is it that I am so "dull of sense" that "the ineffectual light" of your last effort still fails to reach my mental retina, or to impress me with the convincing force of its argument? Must I still keep you on the bank of the river, still watching the stream, and must I leave you there in company with the fool—you know, dear doctor? I'm off to "pastures new," and must leave the contemplation of our mutual immortality with the Power to which it belongs. I do not propose to bandy any more words with you upon the subject-matter of discussion. If you will look over your doubtless much thumbed Anthon, you will find scattered *everywhere* numberless differences of opinion among the many and various commentators as to the proper interpretation of the genius of Horace. So I *again* venture, not withstanding the "*ex cathedra* "—what shall I call it—bumptiousness, yes, that's a good word, and appropriate—to think for myself, and all in despite of my lear-ned pundit. If you feel that it is within the scope and compass of your capacity to discuss "nervous matter" with me, I shall be delighted. Never mind the "confetti," and other sweet nothings with which you have again showered me. They are only "facons de parler," and serve to fill in, like padding that printers use. Pardon me, also, if I do not propose to "take down" Dickens, and figure as auckster of cheap wit, nor laboriously hunt up "smart' authority to sustain my sinking spirit. Dreadful waste of time, dear doctor, and "the play is'nt worth the candle." Trite, but true, But let me hasten to say that as a literary production. your last "correction" is good, especially the funny, frivilous, flimsy facetiæ of it. Excuse the alliteration, sometimes admissible, you know. That was a happy thought embodied in the well-known Italian proverb, "chi troppo abbracia, nulla stringe." Surely no need to translate to help your polyglottal digestion. If so, Macbeth furnishes it in "Vaulting ambition, that o'erleaps itself." How singularly subject you seem to be to disturbing perturbations. The first assumed the form of an *agitation* at my "surprising misconception." In your second so-called "correction" you seem to have been shaken to your centre, and even paralysis threatened; dear me! How very, very sad that would be! Can I do anything to help you, dear doctor? And now, in taking respectful and affectionate leave of you and of the subject has made us acquainted—tho' the pleasure of seeing you in the flesh has never been mine—I would again exhort you to waste no more of your valuable time upon "Nugæ." Let it not be said that the epigram shall again repeat itself, that was once written upon Piron—a would-be critic—in epitaphic form by Voltaire or Scarron or perhaps Moliere—don't remember and don't care to bother with looking it up. Suppose you do so. Maybe there's a chance to exercise your métier again with another "correction." As well as my memory serves, the epitaph ran thus:

"Ci git Piron, qui ne fut rien
Pas même academicien."

"Critics all are ready made.
Take hackney'd jokes from Miller, got by rote,
With just enough of learning to misquote."

J. A. CARMICHAEL.

Not Deserving of Recognition.—"By the way," said the gentlemanly looking person in the black broadcloth suit, "if you mention my name in connection with the accident you may say that 'Dr. Swankem was called and the fractured arm was suitably bandaged,' or something to that effect. Please spell the name correctly. Here's my card."

"Thanks," said the reporter, looking at the card. "You are next door to Dr. Rybold, I believe. Are you acquainted with him?"

"No, sir," replied Dr. Swankem, stiffly. "We do not recognize Dr. Rybold as a member of the profession. He advertises."

SOCIETY REPORTS.

BIOLOGICAL SOCIETY.—PRESIDENT, M. CHAUVEAU.

M. Brown-Sequard gives it as his opinion that injections of the blood of animals of different kinds, are much less dangerous than is generally supposed.

M. Féré communicated some observations respecting the effects of the testicular treatment of M. Brown-Sequard. He has employed two processes, The first, that of injection, he used in twelve cases. Three refused it because of the pain produced. One of them, a case of hysteria, was cured of a paralysis caused by a fit of anger at having been blamed for refusing the injection. The treatment does not act in epilepsy, as was anticipated, but it did not diminish the strength of the patients. They all lost weight, except one. There was no increase of the temperature; the injections were simply inoffensive and negative. M. Féré does not offer these negative observations in the face of more than three thousand announced by M. Brown-Sequard, but he thinks they have a certain amount of interest. A second method of treatment proposed by M. Brown-Sequard is that of incomplete sexual excitement. M. Féré cited the case of an intelligent patient, married, and the father of a family, who in consequence of the publications upon this subject, undertook his own treatment, and brought on a radical genital impotence that no antineurasthenic treatment could ameliorate. The dynamogenic treatment produced an effect exactly opposite to that expected. M. Féré recalled the dangers of this form of treatment, so well known to physicians. M. Brown-Sequard said that he had not formulated any system of treatment by excitation as spoken of by M. Féré. He had only said that he had seen some individuals in whom incomplete manual excitement had procured a certain super activity. He had morover received more than fifty letters upon this subject confirming his opinion, and thought too that these incomplete excitements were generally dangerous, as was also well known. M. Féré replied that according to the report of the Society M. Brown-Sequard had advised manual excitation. M. Brown-Sequard declared that he had advised genital excitement by the kisses of young persons, but not specially manual excitation. A communication was then made by M. Brown-Sequard upon the treatment of nephritis by renal juice. It is known that anuria may exist for a long time without producing death. It must be admitted that in such cases the internal secretion which exists in the kidneys as in all other glands, continues. When uræmia declares itself, it is because the renal parenchyma is destroyed, and the internal secretion is defective. This fact can be demonstrated by restoring to the blood, by injections of renal juice, the principles which it needs. The uræmia would then be a phenomenon of intoxication by defect, and not by excess. MM. Charrin and Gley reported that certain products of secretion of the pyrocyanic bacillus, exercised a manifest action upon the heart. Animals experimented upon presented at autopsy a considerable dilatation of the cardiac cavities, doubtless resulting from a vaso-paralysis.

M. Dastre has investigated the influence of the ablation of the spleen upon the growth. It is relatively without effect in the adult, and the same occurs in young life, although M. Lancereaux had observed it in malarious children. No such phenomenon is seen in very young animals deprived of the spleen. They did not lose weight, and presented nothing special. M. Laborde saw a dog and a bitch, both young, from which the spleen had been removed, and which had produced young, showing that the ablation of the spleen did not prevent the development of the genital organs.

Academy of Medicine—M. Laboulbene, President.—Bright's disease without albuminuria. From a clinical and therapeutic point of view, this communication of M. Dieulafoy is eminently worthy of attentive consideration. In order to diagnose epileptiform, apoplectic, comatose uræmia, with that of the delirious uræmia simulating insan-

ity, also gastric, dyspnœic, cardio-aortic and cephalic uræmia, we always look for albuminuria and œdema. Notwithstanding the works of Germain See, and of Lancereaux, it is not generally known that both albuminuria and œdema may be wanting. In his observations of Brightism, as reported by M. Dieulafoy, albuminuria was wanting in sixty cases, one fourth of the cases cited. Patients who, some months before showed albumen in the urine, later on manifested grave uræmic symptoms without albuminuria. In many cases the ulterior autopsy revealed the existence of nephritis. In such cases, various slight symptoms, notwithstanding the absence of albuminuria, caused the presence of Brightism to be suspected. They were (1) hardness of hearing, deafness, Mèniere's vertigo, very often of uræmic origin; (2) loss of appetite; (3) pollakuria, very distinct from polyuria; (4) exaggerated susceptibility to cold, particularly of the knees, the calves and the feet; (5) prominent flexuosity of the temporal muscles, due to excessive blood tension, so well described by Potaier, and which often cause the belief of arterior-sclerosis; (6) cramps, electric shocks in the calves of the legs, the neck, which wake the patient; (7) abundant epistaxis occurring daily in the morning for many days or many weeks. All these symptoms disappear by use of a milk regimen, an excellent therapeutic test. Physiological experiments show considerable diminution of urinary tonicity. This insufficiency of the urinary depuration, is much more characteristic of nephritis than albuminuria. Albuminuria does not serve as a guide in diagnosis, prognosis, nor for the treatment of Bright's disease. M. Dieulafoy insists upon the importance of the milk regimen in all forms and all cases. At the next meeting he proposed to consider the association of Brightism with gout, syphilis and chlorosis. M. Germain See urged the necessity of the investigation of urinary tonicity by Bouchard's method, in order to confirm the diagnosis of nephritis, which could not be determined by the symptoms alone as they had been described.

Stérésol, an antiseptic varnish adherent to the mucous membranes and skin.—M. le Dr. Berlioz—de Grenoble—made a report upon stérésol, a new remedy for the treatment of diseases of the mucous membrane and skin. This antiseptic varnish is composed of a mixture of gum lac, benjoin and balsam of tolu, dissolved in alcohol, with the addition of phenol or naphthol. This varnish adheres perfectly to the mucous membranes and skin. From numerous experiments he has demonstrated the energetic bactericidal power of stérésol and proved that phenol, which is its active part, does not evaporate entirely from the layer of varnish, for the space of twenty-four hours. Stérésol has been employed for three months at the Hospital Trousseau, in the treatment of diphtheria. The proportion of cures of diptheritic angina is eighty-one per cent. The application of stérésol is not painful, and produces no scar. The layer of varnish remains in place many hours. At the Hospital Saint Louis Dr. Hallopean has obtained cures of rapid tuberculous ulcerations of the skin and tongue, and Dr. Jullien, surgeon of Saint Lazare, has met with remarkable results in old cases of eczema and of echthymatous ulcerations. The sérésol affords permanent antisepsis of the mucous membranes and of regions of the body where it is impossible or difficult to keep on the dressing. There are very many indications for its use, and it may be servicable in numerous instances.

Treatment of talipes equinus by the removal of nearly all of the bones of the tarsus. By M. Championniere.—In the surgical treatment of club foot, M. Just Championnière has practised the ablation of the astragulus. Since then he has perfected his method, and gives now the statistics of thirteen cases treated by a very simple operation, with successful results. In the treatment of talipes equinus of a grave form it is necessary to remove not only the astragalus, but all the bones of the tarsus that prevent the restoration of the foot. So he has removed the astragalus, scaphoid, cuboid, the cuneiform, and frequently the anterior part of the calcaneum. If the antisepis is perfect, the healing of the wound is so simple and speedy as to make the application of the immovable apparatus unnecessary. By the use of motion soon after the operation, sufficient suppleness is obtained. It is useless to make complementary tendinous sections. Notwithstanding the great osseous loss, the arch of the foot is solid, and more elevated than would be supposed. The foot is only a little retracted, and its form does not differ from the other. The patients walk well from the third to the sixth week without limping, and without any special apparatus except stout shoes. They tread firmly and squarely upon the ground. The separation is so simple and complete that M. Championnière thinks that it is never necessary to abstain from removal of the tarsal bones until the whole deformity is corrected. In all the thirteen operations performed for grave cases the success was complete, and the more rapidly effected when the operation had been most extensive. The results are so satisfactory as to establish the paradoxical conclusion that a complicated clubfoot so treated, is much more quickly and more satisfactorily cured than one of a simpler kind. For the latter, one must be satisfied with tendinous sections, followed by the application of a suitable apparatus. But the operation itself must be large and extensive, and the antisepsis complete. Such are the conditions necessary for cure.

Upon the subject of urethral contractions.—M. Reliquet says: The existence of the valve "fossa navicularis," simple or multiple, more or less developed, and located near or at a distance from the meatus, may become, under certain conditions, the cause of urethral spasm simulating contraction. These valves have nearly always the same arrangement as the sigmoid valves of the aorta, having their culs-de-sac open anteriorily. The result is that when the flow of urine comes from the bladder, it is forced up against the upper wall of the canal. If the valves are so situated as not to diminish the calibre of the urethra, and are not influenced particularly in their culs-de-sac, the patient may continue in this abnormal condition without experiencing any trouble. But if they diminish the calibre of the urethra, they produce an atresia of the meatus with all its consequences. Sometimes, the valve presents a circular form, like a diaphragm pierced by an orifice, more or less central, and of variable diameter. Ordinarily in such a case, it is only necessary to separate the lips of the meatus to recognize this abnormal condition; moreover the introduction of a bougie following the upper wall of the urethra and interrupted by an obstacle, suggests exploration by a stylet. It is then evident that the instrument is held by a congenital contraction of the fossa navicularis of the urethra. By breaking down the obstacle we at once recognize its disappearance by being able to pass much larger sounds than could have been done before. Besides this form of contraction of the meatus, to which we give the name of "valvular," there is another deformity of the anterior extremity of the urethra which, without causing a diminution of the calibre of the canal, is characterized by having a sinuous direction, and in reality produces the same effects as though the calibre were contracted. The urethra, in this case, may have a normal meatus placed as usual a little upward on the gland, but afterward directed downwards, its inferior wall presenting behind the meatus the cul-de sac upon which we have so often insisted. But the upper wall is not convex as in the natural fossa navicularis. Here there is no fossa navicularis, and behind the meatus, the calibre of the urethra is tubulated, and the tube is directed downward, but mounts up afterwards to be continuous with the normal canal. It is readily comprehended that the introduction of a sound in this portion of the canal, must forcibly rectify its sinuosity, and that it will be arrested at this point of the urethra. Here is another cause of urethral spasm as was long ago indicated by Civiale. These vicious malformations, while they are not sufficiently pronounced as to act as an atresia of the meatus, may yet become a permanent cause of irritation at the extremity of the penis after blennorrhagia or simple urethritis. Every time that the mucous membrane of the culs-de-sac of the valves is in-

vaded by inflammation or that the culs-de-sac are so superficial that they are easily touched by injections or by the urine, the inflammation there becomes chronic, with exacerbation upon the least excitement. We have seen patients attacked with contraction, in whom the bougie was arrested in the deep region of the urethra, and in whom the bladder did not empty itself. All disappeared after section of the valves, and the subsidence of the chronic inflammation located in their culs-de-sac. There are abnormal conditions of the glands of the urethra and of the glands which coincide with malformations of the prepuce and of the meatus. When these glands become inflamed, which often happens, they greatly augment the irritation at the extremity of the penis. When inflammation attacks them alone, without any complication of the prepuce or meatus, their chronic inflammatory condition, and the suppuration of their cavities is sufficient to determine spasm of the urethra, and interference with micturition. The disappearance of the glandular suppurations causes all functional troubles to cease. The varieties of abnormal glandular conditions are very numerous. In hypospadias, the congenital atresia of the meatus causes functional troubles, and urethral spasm, just as in those whose urethra is in a normal state. Cooper's glands and those situated abnormally in the walls of the penal portion of the urethra, may become the seat of an acute or chronic inflammation, and may cause spasm in the deep region of the urethra, simulating contraction, and determining stagnation and retention of urine. The mucous membrane of the urethra may be the seat of affections due to the general condition of the subject, and localized in a surface of the urethra, to a greater or lesser extent, and producing results like those created by contraction. In individuals in whom there is an urethral deviation, the real diagnosis is only to be made by a conical olivary bougie, very flexible, or a greatly curved sound. When the neck of the bulb is penetrated by these instruments, it is almost certain that we have to do with an urethral deviation, for true retractions of the prostatic region are extremely rare, and always of traumatic origin. There are subjects who, between each micturition, retain within the urethra, crystals of ammoniaco-magnesian phosphate, of uric acid, or of the oxalates, and who complain of the same difficulty in urinating as in cases of contraction. When the urethra is explored, fine bougies—7 to 12, are arrested. On removing them, the crystals which were in the urethra, are found upon them. It then becomes necessary to treat these forms of gravel, and upon the disappearance of the crystals, the calibre of the urethra and unobstructed micturition are restored. The neighboring organs of the urethra, rectum and anus may be points of departure for irritations that will produce urethral spasm. Among these causes, one of the most frequent is the accumulation of fecal matter in the rectum. The retention which occurs in such cases is generally attributed to compression of the urethra by the pushing forward of the prostate by the fecal matter. The following observations demonstrate that spasm of the urethra, with a diminution of its calibre at the beginning of its membranous portion, adds to the effects of compression. During the siege of Paris, M. Reliquet was called by two different physicians to two patients in whom stricture of the urethra had been diagnosed. One was a man of 45 years of age. He had had difficulty in urinating for some time. An attempt to sound him had not succeeded in passing the smallest bougie. M. R. could introduce a number 8 even into the bladder, but number 9 was firmly held at the beginning of the membranous portion. I examined by the rectum, says M. R., and found the prostate very large, and the rectum completely full of fecal matter. By means of large injections, and saline puratives, the rectum was relieved and two days thereafter numbers 22 and 23 could be passed into the urethra without difficulty, and free micturition was re-established. In the second case the same treatment produced the same happy results. This state of spasm of the urethra, due to constipation, is often observed in the young. We have seen it developed in a man of 30 years, by retaining in the bladder 500 grammes of urine after micturition. A bougie, number 12, was arrested in the urethra during the constipation, and when this was removed, the largest instruments could be passed, and the bladder emptied itself voluntarily. Hemorrhoids act upon the urethra in two different ways. In one, the hemorrhoidal swelling is considerable, the anus tumefied, and the hemorrhoidal mass projects exteriorly. If the rectum be touched, contraction of the annal sphincter upon the hemorrhoids at once ensues, and the prostate is always found swollen and of softer consistence than normal; there is prostatic congestion. In such cases, a considerable elevation of the inferior lip of the vesical neck on the urethral side, is always found. In the second case, old hemorrhoids which had not been swollen nor irritated for a long time, caused the trouble. The patient, aged 70 years and general health good, on the first catheterism, a dimunition of the calibre in the membranous portion, and which would not allow a number 15 sound to pass was discovered. The bladder was distended, and retained urine after each micturition. This trouble had not been of long duration. On examining the rectum, the prostate was found to be symmetrical, but slightly developed for his age, and of uniform and normal hardness. But there was a fold of the rectal mucous membrane extending over the prostate, in which there was an induration. The patient said he had had hemorrhoids for many years, but they had ceased to appear for ten years. But that he had just come from a long voyage, in the course of which, and during a constipation which lasted several days, he had found difficulty in passing his urine. Evidently the constipation and the excitement of the voyage, were the causes of swelling of the old hemorrhoids. The urinary difficulty continued until the internal induration was reduced in volume by daily injections which kept the rectum free. Then the urethra permitted the passage of number 22, without arrest. In this case the induration irritated or excited the urethra by its contact with the prostrate."

Biological Society of Paris. President, M. Chauveau: M. Brown-Sequard proposed a new treatment for "acromegaly" by the liquid extracts of organs or parts of organs. In place of making use of testicular juice as the principal means of treatment, he employs it only as an adjuvant, and gives the extracts prepared, as already frequently indicated, of the spleen, the thyroid body and the marrow of bones. Two grammes of each of these liquids should be given daily.

M. Strauss presented a communication from M. Leudet, who has succeeded in identifying the bacillus "lactus ærogenes" of Escheritch with the lactic bacillus of M. Pasteur.

MM. Laver and Catrin have discovered the microbe of mumps. These authors have already described a diplococcus which they frequently found in this disease. In their new researches they have encountered this microbe thirty-nine times in their examinations of the parotid, thirteen times in sixteen examinations of orchitis, and ten times in fifteen of the blood. The microbe disappears gradually from the blood during convalescence, and at the end of a month is not to be found. This microbe does not produce suppuration in animals. Its inoculation of animals in the laboratory, viz. the dog, hare, guiuea-pig, etc., are inoffensive, with the exception of the mouse, in which it is mortal. As respects intra-testicular injections, they produce very considerable tumefaction of the testicle, terminating, however, in cure in a few days. The authors hope to be able to establish the fact by new experiments, that this microbe is the specific infecting agent of mumps.

MM. Charin and D'Arsouval have observed the action of high pressure upon the "bacillus pyocanicus." The cultures were subjected to a pressure of fifty atmospheres of carbonic acid. At the end of four hours, the bacillus had lost its chromogenic properties, and its power of pullulation had diminished, and at the expiration of twenty-four hours it had been deprived of all its properties. M. Chaureau recalled the fact that he had obtained bacterial attenuation

by carbonated high pressure, and that twelve atmospheres had been sufficient to effect its destruction.

Academy of Medicine, Paris. M. Laboulbene, President. Treatment of Tetanus.—M. Berger renewed his observations upon surgical intervention in the treatment of tetatanus, which had already been communicated to the Academy. In the first case, M. Cernè had performed amputation of the wounded finger, on the 19th day of the appearance of tetanus which had resisted chloral and opium. An amelioration was manifest on the next day, and 13 days after, the cure was complete. In a second case, M. Darolles had removed the phalanx of the wounded thumb, and completely disinfected the wound on the 10th day of a tetanus that had been ineffectually treated by chloral. In four days the cure was complete. In a third case, M. Follet freely incised a diffused phlegmon of the thigh, consequent upon contusion, and for several days after, employed thorough disinfection. The tetanus, which had become very serious after the second day—the day of the operation—was relieved in six days. MM. Rony, Nailland, Galmard, Ferraton and Romei, cited several analogous facts. In all these cases, the means employed destroyed the source of the poisonous agent. Of course it had no effect upon the poison which already permeated the blood. Surgical interference does not prevent having recourse to chloral and other anti-tetanic injections.

Are these injections very efficacious in tetanus which has once been declared? M. Rony does not regard them as possessing much power. In seven cases treated, there were five deaths, and two cures, but these last were of a mild type. Injections for prevention have been employed by M. Rangé of Dahomey, and their preventive powers seemed to be real. One of the wounded, however, though subjected to the injections succumbed to tetanus, and two others similarly treated, after the supervention of tetanus, also died. The indications and contra-indications for amputation, are complex. They depend (1) on the gravity of the items, (2) for the incompleteness of other indications, (3) on the importance of the necessary sacrifice. The dangers of the use of chloroform in tetanic subjects have been greatly magnified.

Transplantation of the hetro-plastic plate after cranial trephining.—M. Mossé cited the experiment of taking an osseous plate from a cat and fixing it upon the trepanned cranium of a rabbit, which lived four years after the operation. The transplantation should be made upon a young animal, so as to retain as many points of ossification as possible, and succeeds better when made upon an animal of similar kind. It should also be made from an inferior to an animal of a superior grade, and is more favorable than the inverse condition.

Discussion upon nerve-suture.—M. Laborde reported some views of M. Dayot of Reunes, relative to the return of sensibility after suture, of the sciatic nerve, which had been divided by a wound. The sensibility was carefully observed by the æsthesiometer. Until the nerve was repaired, the collateral and recurrent sensibility had alone existed. M. Laborde's personal experience goes to show that the suture itself does not re-establish the passage of the nervous current. He exposed the two pneumogastrics of a dog, and determined the minimum electric current which passed through one of the nerves arrested the heart; one of the puenmogastrics was then divided and sutured as soon as possible. A much stronger current applied above the section did not arrest the heart; on the contrary the application of it below the point of section, produced the effect of arrest with a current of the same intensity as before the section. The facts given by M. Denter relative to the cessation of trophic troubles after the suture of the divided nerves can only explained by dynamogenic force. But the singular fact of the cure of these trophic troubles without the re-appearance of sensibility is less easily explained. It is a hypothesis difficult to accept, but to explain it, we must admit the existence of independent trophic fibres. M. Le Fort in discussing the various opinions, declared the subject to be still obscure. The theory of mere contact answers for many of the facts, and greatly simplifies them.

Therapeutic Society. President, M. Hallopean.—M. Bardet presented a communication upon the use of petroleum in therapeutics. The success of Dr. Flahant in the provinces in his treatment of diphtheria by petroleum, has caused the question to be fully discussed. It is well to know in the first place that France is supplied with two kinds of petroleum that differ absolutely from each other, viz.: the American petroleum, composed mainly of hydrocarburets and fatty substances, and the Russian petroleum, formed of a mixture of carburets and ethylenic and benzenic elements. The American petroleum does not reach France in a refined condition, and when the crude petroleum is obtained it is ordinary American. The therapeutic use of petroleum and the oils of naphtha and of gabian, similar to petroleum, is very old. In Persia and Ethiopia they are used in painful affections. In Caucasia, the Cossacks make a mixture with the oil of naphtha and use it in choloriform diarrhœa. The first employment medicinally of petroleum dates back to 1808. Lucas made of this product an universal panacea. Since then it has been tried for tinea favosa (Chapplet), scabies, tænia, (Mosso), tuberculosis (Bache), hooping-cough (Gubler), diphtheria (Larcher, Dumont de Lille, Flahant). Petroleum produces no ill effects when taken internally, if the dose does not exceed fifty or sixty grammes. At a dose of 200 or 300 grammes it causes nausea without vomiting, very painful colic, tetanic convulsions, and death may superverne in the collapse. It is eliminated naturally by the urinary passages, and gives to the urine the odor of iris and violet. The employment of crude petroleum cannot be recommended, it being very impure, and one of the three following preparations should be substituted for it. First, ether of petroleum; to be cautiously used; second, essence of petroleum; third, cherozene or lamp oil. M. Blondel recalled the fact that M. Traousseu prescribed petroleum in granular conjunctivitis. M. Delpech feared that by purifying crude petroleum too much, or using its component elements, the same therapeutic results are not obtained. M. Crinon remarked that the Russian petroleum was preferable to the American, because of its chemical composition, the antiseptic value of its component elements —especially the benzenic—being more certain than those of a fatty nature.

Society of Medicine and Practical Surgery. President, M. Bounefoi.—Agoraphobia successfully treated by hypnotism. M. Bérillon had the opportunity of observing the case of a patient of sixty-four years of age in whom agoraphobia had existed for more than forty years. From the beginning of the disease, the patient had not been able to walk out alone, nor to cross the street, without being seized with intense neurasthenic fear and anxiety. His mental condition was almost that of hereditary madness, though his symptoms seemed to be nothing more than such as might be caused by neurasthenic fears. Despite his age, and the many difficulties attending his mental condition, he was put into a profound sleep from which he awoke with both anesthesia and amnesia. After the third hypnotic trial he ventured into the street alone, and soon crossed over without experiencing any very great degree of fear and anxiety. Had no vertigo on travelling on a railroad; the process of cure continued, and the mental condition soon was favorably improved. This experiment presents this very interesting characteristic, viz: that it occurred in a neurasthenic subject. Some authors have insisted that persons affected with neurasthenia, were refactory to hypnotic influences. This does not seem to be the case, for though neurasthenics exhibit a certain amount of tenacity of resistance, they end by being profoundly submissive after a few trials. J. A. C.

Dr. W. Storm White has removed to Portchester, but will retain his office at 56 W. 48th street.

MISCELLANY.

—Riga says that benzin rubbed into the skin of scabetii quickly kills the parasites.

—Washing the hands with ether or chloroform will destroy the smell of iodoform.

—"Mamma," said little Johnny, "if I swallowed a thermometer, would I die by degrees.

—A Koch laboratory will illustrate at the Fair this summer the professor's work in microbic culture.

—In "Polk's Medical Register" for 1893, the names of over 105,000 practitioners of medicine are given.

—The population of Russia was lessened by say a million human lives during the cholera epidemic of 1892.

—There are over one hundred and eighty polyclinics in Berlin; some of them are merely private dispensaries.

—Castor oil has not failed in any case to remove warts to which it has been applied once a day, in from two to six weeks.

—The wife of Sir Joseph Lister, a daughter of Mr. Syme of Edinburg, died recently while traveling in Italy, of pneumonia.

—Koch, the bacteriologist, is to marry a young actress, his wife having obtained a divorce with the award of one-fourth his income.

—Chloral in the proportion of half an ounce to an ounce each of glycerine and water is recommended for boils; applied with a compress.

—Dr. W. P. Northrup has been elected to the vacancy in the New York Foundling Hospital, made vacant by the death of Dr. Charles C. Lee.

It is said that the little kingdom of Belgium has one saloon to every thirty-nine inhabitants and consumes $100,000,000 of liquor every year.

—Bellevue Hospital Medical College, at the end of its term graduated one hundred and thirteen students. There were no general exercises.

—"The heavy work of the world is not done by men who eat the greatest quantity. Moderation in diet seems to be the prerequisite of endurance."

—Dr. Sarah E. Sherman of Salem is the President of the Massachusetts Surgical and Gynæcological Society, all her associates in office being men.

—Sir William Gull was asked by a lady if he did not consider experiments on animals cruel. "Madam," he said: "There is no cruelty compared to ignorance."

—The Board of Health has issued an order requiring the display of a flag or card on houses where there are contagious diseases stating the name of the disease.

—Dr. George F. Shrady, the editor of the *Medical Record*, has been appointed consulting physician in chief of the hospitals of the Health Department of New York.

—As Mrs. Partington was gazing upon St. Paul's Cathedral in London, she remarked rapturously: "O, venereal pile! Gigantic stricture!"—*N. Y. Sunday Mercury.*

—Dr. Stewart, of the Ward's Island Hospitals, recommends agaracine x as almost a specific in night sweats, also in fetid sweating of the feet. One dose at bed time.

—Duponican recommends as efficient in tape-worm a mixture of the extract of male fern, chloroform and castor oil, given in capsules. The maximum dose of the male fern is fifteen grains.

—The investigations of Drs. Abbott and McCormick, of the Johns Hopkins University, shows that a solution containing 7 per cent. of acetic acid is more effective as a germicide than bichloride of mercury.

—A physician was represented in Egyptian hieroglyphics by the picture of a duck. Our advices do not state whether this was because he was looked upon as a quack, or because he was a favorite with the fair sex.

—The highest honor as a medical student ever won by a woman has been gained by Miss Louise Aldrich Blake, the daughter of an English clergyman. She was "double first" in the examinations at the London University.

—The following epitaph is said to be engraved upon a tombstone in Lincolnshire:

"Here lies the body of Johnny dear,
Snatched away by the diarrhœa."

—Dr. I. M. Cleveland, for many years the Medical Superintendent of the Hospital for the Insane at Poughkeepsie, has resigned his position on account of ill health. Dr. C. W. Pilgrim has been appointed to fill the vacancy.

—Fifty parts sulphide of barium and twenty-five parts each of starch and oxide of zinc, mixed with water sufficient to make a paste, spread on a hairy spot, will in ten minutes when scraped off leave surface perfectly smooth.

—The Anti-Cancer League is the name of a new organization, of which Dr. Verneuil, of Paris, is the moving spirit. Its members are prominent medical men, whose object is to attack this dreadful disease in concert and from all directions.

—The *Boston Medical and Surgical Journal* states that the entering class of the Harvard Medical School, which it was expected would be small this year on account of the introduction of the compulsory four years' course, is, on the contrary, very large. Diplomas that will mean something.

—A traveller visiting recently the Wakoya tribe of Moquis Indians (who number less than two hundred souls) reports in *Harper's Bazar*, fifteen centenarians. Each individual's age record is scrupulously kept on a particular horn by punching in it a hole at every birthday. On one of these horns, belonging to an almost mummified but not wholly decrepit old woman, named Watsuma, the visitor was permitteded to count the holes, which numbered 184, representing the years of her life.

—At Bogota, which is situated nearly under the equator, and has an altitude of 9,000 feet, consumption and pneumonia are unknown. The winter temperature is 59 degrees Fah., and the spring and summer 59.5 degrees. Dr. Remondino, in his recent work on the "Mediterranean Shores of America," says that at Janja, in Peru, 79 per cent. of all cases of consumption are cured. The altitude of this place is 8,000 feet above the sea level, and the temperature is between 50 and 60 degrees Fah.

—According to the *Lyon Médical*, between 1836 and 1840, when the consumption of alcohol in France was about 500,000 hectoliters, the number of suicides known to have been due to alcoholism was 137; 226 deaths from accident were also directly traceable to the same cause. Between 1880 and 1885, when the consumption of alcohol had risen to 1,800,000 hectoliters, the suicides from alcoholism numbered 838, and the accidental deaths 538. The proportion to increase of population is not given however.

—Mixed History.—Little Johnny to his sister: "Guess I's read sumfin 'bout it, too. Girls don't know eb'rything.' Chris'fer C'lumbus he cut down a cherry tree wid Gawge Wash'nton's little hatchit. Old Mister Wash'nton was mad as hops. He says, orful loud, 'Gawge, did you chop that? Tell de troof, or your par 'll thrash you!' Ga wge says, 'Par, I can't tell no lies; it was Chris'fer what chopped it.' Mister Wash'nton guv Gawge some candy, an' he licked Chris'fer like blazes. Then he sent him to sea, an' he sor, an' he got to be a big man, because he sailed an' found Injuns. My jografy says so, an' the jografy man he knows more'n all you girls knows."